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Oration.

GASTRIC HEMORRHAGE.

ORATION IN SURGERY, DELIVERED AT THE FIFTY-FIRST ANNUAL MEETING OF THE AMERICAN MEDICAL ASSOCIATION, HELD AT ATLANTIC CITY, N. J., JUNE 5-8, 1900.

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PHILADELPHIA.

Permit me in the first place to express my profoundest gratitude to the ASSOCIATION for the distinguished honor conferred in placing the surgical oration for 1900 in my hands. It is with more than diffidence that I approach so great a responsibility, being keenly alive to my own shortcomings, and having for the nonce a quickened memory of the brilliant addresses made on former occasions by many of my illustrious predecessors.

Instead of reviewing the advances made in the entire field of surgery during the past year—a task which could, at best, be only cursorily done in the time that I feel warranted in occupying, I have chosen to consider the subject of hemorrhage from the stomach in its several phases, as being more likely to interest a mixed audience, such as we have, comprising specialists, general practitioners and surgeons. Furthermore, the lack of attention given the subject justifies the selection.

Gastric hemorrhage of whatever nature was, until recently, looked upon as strictly a medical affection, and was treated on the same general principles as underlie the treatment of many other internal hemorrhages. This is still true of many, indeed most, cases of gastrorrhagia, but as I shall endeavor to show, is not the case with others which are treated by a combination of medical and surgical means, and others still which should be met by prompt operative procedure.

Our purpose will be best subserved by enumerating the different varieties of gastrorrhagias, showing how they are to be diagnosticated, and giving the treatment to be pursued in the more important varieties. Hemorrhage from the stomach may result from ulcer of the stomach, duodenal ulcer, gastric carcinoma, cirrhosis of the liver, vicarious menstruation, post-operative hematemesis, purpura hemorrhagica, miliary aneurysms, aneurysms of the aorta and other vessels, leukemia, typhoid, yellow and other infectious fevers, valvular disease of the heart, and various kinds of traumatism.

It will be practicable to consider only the most important and frequent causes of gastric hemorrhage.

Gastric ulcer is the most common disease of the stomach producing hemorrhage—occurring in 5 per cent. of the entire population, according to Ewald[1] and others high in authority.

Hematemesis occurs in at least 50 per cent. of all cases of gastric ulcer, and many authorities estimate it as present in 80 per cent. It is, too, fatal in 8 per cent. of the cases in which it occurs, according to the conservative estimate of Leube,[2] and we can not question that it is indirectly fatal in a much greater number of cases by anemia and its remote consequences.

Many authorities who might be quoted place both the frequency and mortality of hemorrhage higher than Leube does, and very few as low. Therefore, its prompt detection and proper treatment are of the greatest importance. The recognition of gastric hemorrhage resulting from ulcer is usually readily made on account of the previous diagnosis in the case; but if the patient is seen at or subsequent to the hemorrhage for the first time, its association with the other classic symptoms of ulcer, particularly pain and vomiting after eating, leave little room for doubt. While there will be pain, vomiting, and gastrorrhagia in carcinoma of the stomach, the differences furnished by the two diseases are so marked that doubtful or border-line cases will be rare.

Pain, which is common to both, is more influenced by the taking of food in ulcer, and the local tenderness on pressure is decidedly more circumscribed, so much so that the patient will point at it with the tip of his finger, rather than with the entire hand. This is a valuable sign, and is insisted upon by J. M. DaCosta.[3] It is usually felt with the greatest intensity from one to two inches below the xiphoid cartilage; and directly opposite, near the heads of the last two ribs, will be found a second painful spot. The pain of ulcer is often relieved at once by emesis if it empties the stomach. This is not the case with the pain and vomiting of carcinoma.

The character and amount of the ejected blood, however, will usually give prompt and positive evidence of its source, and the cause underlying it, making it needless to question and physically examine a patient who should be kept quiet during, and for some time after, a hemorrhage. Bleeding in carcinoma is rarely so free as in ulcer; the amount of blood lost being more frequent, in small quantities, and of the characteristic coffee-grounds aappearance. It does not resemble pure blood, as it does in ulcer, even though mixed with food. The presence of hydrochloric acid—perhaps an excess of it, or hyperchlorhydria—in the ejected matter is as characteristic of ulcer as its presence and the presence of lactic acid are of carcinoma. Ulcer is more frequent in females under 40, whereas carcinoma occurs more commonly in men past middle life.

If an examination of the patient is allowable, the presence of a palpable tumor will be more often encountered in carcinoma than in benign ulcer, but I would emphasize the fact that a decided tumor may, and did, exist in quite a number of the forty benign ulcers thus far excised. On account of the tumor, all of the operators

thought that they were operating for malignant disease, until the microscope showed differently, and in every instance the subsequent clinical history has confirmed the verdict of the microscopist. Our distinguished president, Dr. W. W. Keen, was one of the first to do partial gastrectomy for a benign ulcer which caused quite a marked tumor through the abdominal wall. The patient recovered promptly and is still—ten years after the operation—in perfect health. Others have had the same experience, as will be seen by reference to my paper read before the American Surgical Association, May 1, reporting all operated cases up to date.

Treatment.—Formerly the treatment of hemorrhage from gastric ulcer was uniformly by ice, astringents, and opium, combined, of course, with rest. This should properly be the treatment still for the first hemorrhage in all cases; for the second possibly; but not for subsequent ones, for recurring hemorrhage, like appendicitis, will sooner or later prove fatal, and should, like that affection, be treated radically; and to carry the parallelism further, the best time to operate is between attacks. With two hemorrhages coming close together we may assume that, as in appendicitis, there will be a third attack, and if anything is to be attempted surgically it should be done when the patient is in fairly good condition, and not in the collapse of hemorrhage.

Before taking up operative procedures it might be well to refer to the treatment of gastrorrhagia by copious enemata of hot water, as advised and practiced with such happy effect seemingly by Tripier.[5]

In several cases which had resisted all the usual medicinal and dietetic treatment, Tripier secured prompt and abiding results by hot enemata repeated twice or thrice daily. The water should be injected at a temperature of 112 to 120 F. There is no doubt, he says, that the hemorrhage came from the stomach, duodenum and points high in the alimentary tract. Hot water acts reflexly.

Tripier has also found that hot enemata promptly check intestinal hemorrhage in typhoid fever, as it will bleeding from the rectum, sigmoid, and large bowel. We use hot water to check external, uterine, and other hemorrhages, and so superior is it to ice that one rarely sees the latter used. It certainly should be preferred in rectal and other intestinal hemorrhages where the water can come promptly in contact with the bleeding points. We also know that with the patient in proper position, points higher up in the alimentary canal may thus be reached, and the bleeding capillaries or arterioles influenced directly by the best of hemostatics—heat. There is also evidence to show that it acts reflexly, and may in this way control duodenal, even gastric, hemorrhage.

Plunging the hands in hot water will at times quickly arrest bleeding at the nose, as will ice applied to the head. This, surely, must be reflex. Another and good reason for using hot water per rectum in the manner advised by Tripier is, that if nothing more is done shock is combated in the best possible way, as it is easy to add salt to the water in proper proportion to make normal salt solution. Hot water should also be taken in small quantities by the stomach. It is my belief that it will be less likely to excite vomiting and more certain in its hemostatic effects than ice. Favorably as I look on the proposal to use hot water in the ways indicated in both gastric and intestinal hemorrhage, anatomy and pathology must not be forgotten, and it should be clearly understood that hot water can do no more in internal hemorrhages than is to be expected in external ones. If the bleeding is capillary or the open arterioles of very small size, prompt hemostasis may result; whereas, if an artery or vein of any size has been opened we may expect much less from any treatment which depends for its success on the formation of a firm clot in the mouth of the bleeding vessel, than we usually can in external hemorrhage. In the latter we usually have complete section of a blood-vessel, which favors retraction and contraction of its coats—Nature's best means of arresting hemorrhage, favoring as they do the formation of a clot.

In hemorrhage the result of disease, however, we have very generally a lateral opening made into the caliber of the blood-vessel, and the ability of the latter to contract and retract within its sheath is no greater, but actually less, than that of a vessel incompletely cut across. Occasionally, it is true, ulcerative action will as completely divide a blood-vessel as if it were done by a knife, but such cases are exceptional, as will be shown by a careful study of fifty-five fatal cases of gastric and duodenal hemorrhage collected and reported by M. Savariaud[6] in his very complete thesis.

Of fifty-five autopsies collected from various sources, and reported by Savariaud—none were operated upon—there were: Ulcerations of the splenic artery, 17 cases; ulcerations of the coronary artery, 6; ulcerations of the pancreatico-duodenal, 7; ulcerations of the gastric arterioles, 10; branches of the coronary vein, 2; other veins, 2; vessel not determined, 2; no vascular orifice visible, 4; vessel not mentioned, 4.

Hematemesis frequently occurs as the result of duodenal ulcerations, and as it is at times impossible to differentiate between gastric and duodenal hemorrhage, we have included the seven cases of duodenal ulcer. Furthermore, gastric and duodenal ulcerations frequently coexist and the treatment of both is essentially the same.

The splenic artery and vein have been opened by the same ulcer, as occurred in the case of Gaillard.[7]

Contrary to what might with reason be expected, there is no constant relation between the size of the vessel and the amount of blood, or the rapidity with which it is lost. It is impossible, therefore, to diagnosticate with any degree of certainty the source of the hemorrhage, and an opinion at best is only a guess based on probabilities anatomic and pathologic. He who said, "the end of all philosophy is a learned doubt," must have been a medical man thinking of gastric hemorrhage.

The subjoined table is also from Savariaud.

Vessel.	Cases.	Sudden Death.	Rapid Death.	Survived Considerable Time.
Heart	4	1	1	2 (3 days)
Aorta	2	1	1	1 (10 days)
Hepatic	2	1	1	1 (10 days)
Splenic	17	3	7	7 (2 to 8 days)
Coronary	6	1	3	2
Pancreatico-duodenal	6	1	3	2 (8 to 15 days)
Arterioles	10	1	1	8 (4 to 15 days)
Small Veins	4	1	1	2 (7 to 11 days)
Invisible Veins	3	2	1	1 (21 days)

It will also be seen from this table, based on autopsies where careful examinations were made, that death may be sudden in capillary hemorrhage, or delayed ten days when there is an opening into the aorta as large as a haricot bean—Grunfeld's case.

This uncertainty of diagnosis is a strong argument in favor of surgical intervention before it is too late.

I would emphasize the fact shown by the above table, which is based on accurate post-mortem examinations, that large and rapidly fatal hemorrhages may occur from capillaries. These observations have also been borne out in many of the operative cases herewith reported, for in

at least seven, while the bleeding was free, it could not be located. So then, having in mind the usual source of hemorrhage in gastric ulcer, and that it is from vessels of rather large size in nearly four-fifths of all fatal cases, the uncertainty and utter unreliability of the ordinary medical means employed will be apparent.

Measures adapted to the treatment of capillary hemorrhage may often succeed, and of these we believe hot water to promise the most, but as one would not think of treating hemorrhage from the radial artery or vein by such means, one should think less of doing so here with vessels of equal and even greater size involved, with Nature's best means of checking hemorrhage made impossible for the reasons already given.

It is therefore manifest that hemorrhages following the superficial erosions of the gastric mucous membrane —the *exulceratio simplex* of Dieulafoy—rather than the gastrorrhagias following the *ulcus simplex* of Cruveilhier, which is essentially a perforating process, stand the best chance to be arrested spontaneously by Nature, or to be cured by the routine medicinal and dietetic treatment.

The hemorrhage may undoubtedly be just as free in the superficial as the deep ulcers, but the difference is in the size of the bleeding vessels. As there are only capillaries and arterioles in the gastric mucous membrane, hemorrhages from such vessels could be reasonably expected to yield to measures impotent in the presence of bleeding from a coronary or splenic artery. Representing as they do less than 20 per cent. of the fatal hemorrhages, there is every reason to believe that bleeding from capillaries and arterioles will constitute a very much larger per cent., possibly a majority, of non-fatal gastrorrhagias. I have collected, so far as I know,, every published case of operation for bleeding ulcer, and to them added many reported to me in personal communications for the first time. A careful study of my tables does not enable me to say definitely the number of cases in which the bleeding came from arterioles. It does, however, justify the statement that it is a large per cent.

Having exhausted all of the ordinary medical means for arresting hemorrhage, should such cases be treated as external hemorrhage, viz., the bleeding vessels cut down and ligated? There are now a sufficient number of cases on record to justify the statement that better results will be secured by judicious interference than by a policy of inaction hitherto invariably followed. By this I would not be understood as advocating the opposite plan of interference in every case—far from it. Up to a certain point there is substantial agreement between physicians and surgeons, and I may say here that the idea of arresting hemorrhage from gastric ulcer by surgical means occurred to a physician and a surgeon at the same time. In all cases of small but frequent hemorrhages, which slowly but almost surely destroy the patient, recourse should be had to timely operation. If there is at the same time gastrectasis, the indication for operation is absolute, as dilatation stretches the ulcer, prevents healing and favors bleeding.

The results, too, of operations for chronic hemorrhage have been more than encouraging and should, without question, lead to earlier and more frequent surgical intervention. There have been thirty-one operations for frequently recurring, or what might be called chronic, hemorrhage, with six deaths, or a mortality of 19.3 per cent. This is, under the circumstances, an excellent showing when it is remembered that it represents but little more than the average mortality given in a large number of operations on the stomach for non-hemorrhagic ulcers. Mr. Robson[8] reports 188 operations for gastric ulcer—non-hemorrhagic and non-perforating—with a mortality of 16.4 per cent., which is about the same conclusion reached by Heydenriech,[9] Tricome[10] and others who have written on the subject. He (Robson) later on gives the mortality of operations for chronic hemorrhage as 10.5 per cent. Manifestly gastroenterostomy, pyloroplasty, or other operations on the stomach should not give a better prognosis on account of the presence of hemorrhage as a symptom. The good showing now made for recurring hemorrhage will be still better when physicians generally recognize that if delayed operations are justifiable, early ones are better, and should, therefore, be encouraged at a time when the chances of success are correspondingly brighter.

Operations for acute hemorrhage in general do not so imperatively call for surgical intervention, but when this is said, it is saying nothing more than is true of external hemorrhage. In the present state of our knowledge, we can not say that operation should ever be done during the first hemorrhage or the ensuing shock. Likewise, if seen after the hemorrhage, when the patient is successfully rallying from shock, a policy of non-intervention is not only permissible, but best.

Dieulafoy[11] advises surgical intervention after the first hemorrhage, if as much as half a liter of blood is lost, and insists on operation if the bleeding is repeated within twenty-four hours. One of Dieulafoy's patients was succesfully operated on by Cazin, after the first hemorrhage. There has been, however, a rather general condemnation of too early operation by surgeons, from Mikulicz, the first to operate for hemorrhage, in 1887, and from Keen, Hartman, Heydenriech and Robson, none of whom have advised operations in acute hemorrhage. Certainly surgeons can not be accused of too great alacrity in operating for gastric hemorrhage when none have been so radical as a physician.

If the hemorrhage is repeated within a short time, the burning question will present itself to the physician first, to the surgeon next: shall a policy of "masterly inactivity" be longer pursued? To this question a majority would still answer "yes," believing that the chances offered by Nature are better than those given by surgery. I am satisfied that during a second serious hemorrhage inaction should govern, or only medical means be used; but as soon as bleeding ceases, the patient has rallied from shock and is in good condition, something should be done to prevent what are reasonably certain—other hemorrhages. This is even less radical than what we should do in external hemorrhage, and, as has been said, Nature has less chance to arrest spontaneously bleeding from vessels opened by ulcerative action.

I am thoroughly convinced, from a careful study of all reported operative cases up to date, that none were operated on too early, but many too late. It is certainly the duty of the physician to summon surgical aid as soon as the second hemorrhage begins, if he has not already done so, that everything may be in readiness to seize upon a propitious time for interference before a third attack.

It is easy to believe that several cases in my tables were lost by delaying operation until after the third and fourth hemorrhage. *Per contra,* there have been quite a number of successful results after the second and third

TABLES EMBRACING ALL CASES FOUND IN LITERATURE OF OPERATIONS FOR ACUTE AND CHRONIC HEMORRHAGES COMPLICATING GASTRIC ULCER.
COMPILED WITH THE ASSISTANCE OF DRS. STILLWELL C. BURNS AND W. H. THOMAS.

No.	Operator.	Sex. Age.	History.	Symptoms.	Diagnosis.	Date oper.	Conditions found at operation.	Operation.	Remarks.	Result.	Reference.
1	Abbe . . . (A)	F...	One month previous to admission had vomited thirty ounces of blood.	Epigastric pain, vomiting, slight abdominal rigidity.	Chronic gastric ulcer.	. .	No ulcers discovered at time of operation.	Gastrotomy	Temperature continued to rise, a few hours before death had recurr'nc' of hematemesis: ulcers on ant. and post. walls.	Death.	N. Y. Med. Journal, May, 1891
2	Andrews, E. Wyllys (A)	F... 38	For two years has had constant boring pain, located beneath zyphoid cartilage, greatly increased by food.	May 28. 1898, the patient collapsed from sudden profuse gastric hemorrhage. This was repeated the following day.	Gastric ulcer.	5, 30, 1898	Ulcer 12 mm. in diameter found on posterior wall and deeply eroded.	Ulcer drawn forward so as to form the apex of a cone around the base of which a strong ligature was tied.	Patient has remained well up to the present time.	Recovery.	Annals of Surgery, 1898, p. 393.
3	Andrews, E. Wyllys (A)	M.. 36	Had suffered for several years from cardialgia and nausea. July 5, 1898, sudden profuse gastric hemorrhage.	Pain in the epigastrium constant. Severe hematemesis.	Gastric ulcer.	9, 26, 1898	Small erosion on posterior wall which bled profusely on handling. Similar erosions found at three other points.	All these points were ligated off with large silk and the stomach wall closed.	Stood operation well. Rectal feeding continued two weeks. Continued to suffer from gastralgia until he left the hospit'l, Nov. 3, 1898. No hematemesis.	Recovery.	Annals of Surgery, 1898.
4	Armstrong G. E. . . (A)	F. . 35	Repeated copious hemorrhages from stomach for 7 days. Previous health good; no symptoms of gastric ulcer. Medicinal treatment had no effect upon the hemorrhages.	Blanched mucous membranes. Finger nails white; dyspnea on slight exertion. Temperature on admission, 102.8 F.; pulse, 136; respirations, 44.	. . . . .	. .	No deeply excavated ulcer was found, but blood was found oozing from three different places which looked like linear fissures.	Hemorrhage stopped by application of the Paquelin cautery. Abdominal incision closed without drainage.	Stomach-feeding began next day. From this time on took nourishment by mouth, rectal-feeding continued 5 days. Woman is now quite well; has perfect digestion; leading an active life.	Recovery.	British Med. Journal, 1899. p. 1087.
5	Armstrong G. E. . . (A)	F... 46	Suffered from indigestion for 8 or 10 yrs. Diagnosis of ulcer made 9 yrs. ago, at which time she had slight hemorrhage from stom.	Pain, vomiting and recurring hematemesis.	Gastric ulcer.	10, 12, 1899	Deeply excavated ulcer on lesser curvature 2 inches from pylorus. Blood flowed freely from several points around margin.	Excision of ulcer. Opening of which extended through pylorus closed as in Heineke-Mikulicz pyloroplasty.	Making a good recovery; 3 weeks after operation she is taking considerable quantities of food without pain or vomiting.	Recovery.	Montreal Med. Jour. vol. xxviii, 933.
6	Armstrong G. E. . . (C)	F... 31	. . . . .	Indigestion, pain in stomach for two years. Repeated vomiting of small quantities of blood.	Gastric ulcer.	12, 15, 1899	Failed to find the ulcer	Pyloroplasty	Excellent recovery; later returned with recurrence of sympt'ms excepti'g hematemesis; treated medicinally since return; slowly recovering.	Recovery.	Not reported; details sent in priv'te letter.
7	Armstrong G. E. . . (A)	F... 27	Symptoms first appeared in 1892.	Pain in epigastrium with vomiting appearing about 1 hr. after eating In 1895 hematemesis 1 teacupful; Nov., 1899, 2d attack of hematemesis (16 oz.); Jan. 3, 1899, half a chamber vesselful; Feb. 24, 20 oz. Patient blanched, respirations somewhat gaspi'g. Mar. 20 vomited 4 oz. of blood.	. . . . .	3, 30, 1900	On opening anterior wall found blood oozing from several small points which were discolored At cardiac end of stom. was an area 2 in. square situated on ant. wall, which was dark, superficially eroded and from which blood oozed rapidly in considerable quantity from 6 or 8 points.	All bleeding and eroded surfaces touched with a broad Paquelin point. A pyloroplasty was done and the abdomen closed without drainage.	Convalescence to date smooth and afebrile. She is now taking solid food. Has no pain or nausea. She is evidently making blood.	Recovery.	Not reported; details sent in private letter to author
8	Bircher. . . (C)	F... 36	[Servant.] Cause of trouble: sausage intoxication. Trouble had lasted two years.	Repeated gastric hemorrhages, palpitation, frequent belching, vomited all solid food, bowels moved once a week; symptoms worse since influenza of 1890.	Dilatat'on of stomach with ulcer.	12, 14, 1891	Circular constriction about the pylorus. Stomach dilated.	Gastroplication	No vomiti'g, no succussion splash since operation. Discharged Jan. 5, '92. Gastric disturbances disappeared. Followed case 2 years; no return of symptoms.	Recovery.	Cbl. f. Sch. Aerzte, 1894, 18.
9	Cazin. . . . (A)	. .	No previous gastric symptoms.	Profuse hematemesis Oct. 7-9-16. Red-blood corpuscles 1,600,000.	. . . . .	10, 16, 1897	Stomach normal in appearance; four lenticular erosions on posterior surface in the neighborhood of the greater curvature.	Erosions sutured with catgut.	Discharged in the later part of December in perfect health.	Recovery.	Dieulafoy, Presse Med., 1898. p. 31.
10	Cazin. . . . (A)	. .	One acute hemorrhage from stomach.	. . . . .	. . . . .	. .	. . . . .	Ligature of ulcer en masse. . . .	. . . . .	Recovery.	London Lancet, 1898, i, 335.
11	Curtis, B. F . . . (C)	M.. 37	April, 1893, man began to suffer epigastric pain after eating. A month later vomited food, mucous, coffee ground matter. He admitted gonorrhea, venereal ulcers and alcoholism.	Pain relieved by vomiting. No improvement on washing out stomach. State of marked emaciation. Patient unable to work. Entered hospital in March, 1894.	Pyloric obstruction probably benign in character.	. .	Ulcer found encircling pylorus. Ulcer measured 2 inches from intestinal border to gastric border.	Incision was extended in the long axis of the pylorus and entirely throu' the disease into healthy mucous membrane; then joined tr'nsversely (Heineke-Mikulicz pyloroplasty with silk sutures.)	Fed 4 days per rectum; then swallowed solid food; no vomiting or pain after operation. Pathologist's report showed no evidence of malignancy.	Recovery.	Annals of Surgery, August. 1894.
12	Czerny . . (A)	. .	. . . . .	Acute gastric hemorrhage. . .	Gastric ulcer.	. .	. . . . .	Partial excision and gastro-enterostomy.	Checked the hemorrhage immediately.	Recovery.	Petersen: Deutsche Med Woch. 1899, 24-25.
13	Czerny . . . (A)	. .	Patient brought to clinic in highly anemic state; on arrival had several violent hematemeses. Pulse so weak that operation was postponed two days, then decided to operate despite persistent hemorrhages.	. . . . .	Gastric ulcer.	. .	. . . . .	Simple gastro-enterostomy performed in twelve minutes, Ulcer not sought for.	Hemorrhage stopped permanently, as though a hemostat had been applied.	Recovery.	Ibid.
14	Czerny . . (C)	. .	Hemorrhage had occurred a short time before operation.	. . . . .	Pyloric stenosis.	. .	. . . . .	Pyloroplasty.	Hemorrhage permanently cured.	Recovery.	Ibid.
15	Czerny . . (C)	. .	Hemorrhage occurred a short time before operation.	. . . . .	Pyloric stenosis.	. .	. . . . .	Gastro-enterostomy.	Hemorrhage permanently cured.	Recovery.	Ibid.
16	Czerny . . (C)	. .	Hemorrhage occurred a short time before operation.	. . . . .	Pyloric stenosis.	. .	. . . . .	Gastro-enterostomy	Hemorrhage permanently cured.	Recovery.	Ibid.
17	Czerny . . (C)	. .	Hemorrhage had occurred a short time before operation.	. . . . .	Pyloric stenosis.	. .	. . . . .	Gastro-enterostomy	. . . . .	Recovery.	Ibid.
18	Elder. . . (A)	F.. 42	No previous gastric symptoms. Sudden vomiting of large quan-	Repeated and uncontrollable hematemesis.	Gastric ulcer.	on 3d attack.	Deeply excavated ulcer, 1 x 1½ inches, found on lesser curvature. In the center of its base	Catgut ligature was carried thro' the base of the ulcer, just beneath opening in wall of vessel	Patient died from acute anemia on the following day. At the necropsy it was found that no bleeding had occurred after the	Death.	G. E. Armstrong: British Medical

16	Czerny (C)	. .	. .	Hemorrhage occurred a short time before operation.	. . . . .	Pyloric stenosis.	. .	. . . . .	Gastro-enterostomy	Hemorrhage permanently cured.	Recovery.	Ibid.
17	Czerny (C)	. .	. .	Hemorrhage had occurred a short time before operation.	. . . . .	Pyloric stenosis.	. .	. . . . .	Gastro-enterostomy.	. . . . .	Recovery.	Ibid.
18	Elder. . . . (A)	F.. 42	No previous gastric symptoms. Sudden vomiting of large quantity of blood (10 oz.); notwithstanding rest and medicinal treatment, hematemesis occurred at intervals next day and night. At 3 p.m. third day she vomited 12 oz of blood.	Repeated and uncontrollable hematemesis.	Gastric ulcer.	At 5 p.m. on 3d day of attack.	Deeply excavated ulcer, 1 x 1½ inches, found on lesser curvature. In the center of its base was an open artery from which blood was oozing freely.	Catgut ligature was carried thro' the base of the ulcer, just beneath opening in wall of vessel on a curved needle. This arrested hemor. completely; sutures carried across floor of the ulcer; edges approximated; abd'n closed without drainage.	Patient died from acute anemia on the following day. At the necropsy it was found that no bleeding had occurred after the operation.	Death.	G. E. Armstrong: British Medical Journal, 1899, p. 1087.
19	Elliot. . . . (A)	M.. 47	[His work entails constant pressure of tools on abdomen.] Markedly tubercular family history; moderate drinker; childhood diseases; rheumatism; morning cough for 30 years; subject to attacks of indigestion.	For the last 3 mos. constant pain in epigastrium not relieved by food; 5 days ago vomited 2 qts. of thick brown matter; since then has had coffee-grounds vomit.	Gastric ulcer with recurring hemorrhage.	. .	Pyloric obstruction complete or nearly so.	Excision of pylorus and all diseased tissue, which included one-fifth of stomach, including the whole of the lesser curvature.	Stood operation well; was fed per rectum; 3d day awoke in pain; temperature rose to 101°; pulse 102; he gradually sank and died; cause of death not positively determined.	Death.	E. G. Cutler: Boston M. and S. Journal, 1897, p. 54.
20	Foulon and Ravaud .	M.. 40	Symptoms appeared at 18. Hematemesis at 22 years. Several hemorrhages since that time almost mortal. Permanent milk diet.	Since the onset of hematemesis has had all the symptoms of gastric ulcer; symptoms of progressive pyloric stenosis. Extreme weakness; fresh very copious hemorrhage; violent pain.	Gastric ulcer. Pyloric stenosis.	June 9, 1892.	Pylorus and first portion of duodenum transformed into large callous mass adherent to near organs; 1st loop of duodenum was protruded through a slit in the transverse meso-colon.	Posterior gastro enterostomy. The jejunum was drawn down below transverse meso-colon and circumference of gastric orifice fixed to the lips of the mesenteric incision.	Pain has entirely disappeared. Patient eats well; has gained in strength and has never had a return of the hematemesis.	Recovery.	Doyen: Traitem'nt Chirugic'l des affec. a l'estomac p. 332.
21	Gilford Hastings (?)	F . 19	[Servant.] Had three attacks of dyspepsia in two years, accompanied by epigastric pain and vomiting; on two occasions hematemesis.	Sudden acute abdominal pain, with tenderness over the whole epigastrium; vomiting.	Gastric ulcer	. .	Ulcer found on greater curvature on anterior aspect of stomach.	Excision of ulcer by a partial gastrectomy. Two rows of sutures of silk-worm gut closed the stomach.	Vomiting and retching continued after operation and lasted until her death, which occurred 32 hours after operation.	Death.	Guy's Hosp. Reports, vol. liii, 1896.
22	Gilford Hastings (C)	F . . 30	Subject to severe anemia when 18 years of age, but never had any form of dyspepsia.	Hemorrhage the one and only symptom	. . . . .	. .	Stomach explored, but no lesion found.	Gastrotomy.	Faintness and hematemesis occurred; patient died 9 days after operation; postmortem; large ulcer on posteri'r surface.	Death.	Ibid.
23	Gilford Hastings (C)	F.. 32	[Servant.] History of long periods of nausea, vomiting, pain and bleeding.	At the time of operation, in addition to these symptoms, there were also signs of pyloric stenosis.	Gastric ulcer. Pyloric stenosis.	. .	Stomach bound down by adhesions. No obstructions at pylorus; stomach was hour-glass shaped; no active ulcers found.	Stenosis, dealt with after the manner devised by Heineke-Mikulicz.	Did well for 1 mo.; then a sudden hemorrhage caus'd death; postmortem; very chronic-looking ulcers in dilated first part.	Death.	Ibid.
24	Grad. Herman (C)	F.. 32	Had been ill for the past two years.	After taking food had pain, nausea and vomiting, with occasional profuse hematemesia.	Gastric ulcer.	. .	Ulcer found on anterior wall near cardiac orifice, about half an inch in diameter.	Excision of ulcer by a partial gastrectomy.	After operation patient improv'd steadily; fed per rectum a few days, then by mouth cautiously. Recovery slow and uneventful.	Recovery.	Med. Rec., N. Y., 1899, lv.
25	Greer, W. Jones. . (C)	F.. 28	Symptoms of gastric ulcer for ten years.	Nausea, vomiting and pain more or less severe, of daily occurrence. Occasional profuse hematemesis.	Gastric ulcer.	Oct. 10, 1899.	Stomach dilated; pylorus thickened, principally on the ant. surface; probably large ulcer; other dark spots on ant. surface, probably ulcers; no adhesions.	Gastro-jejunostomy	Did well; convalescence complicated on 14th day by femoral thrombosis; all pain, sickness, discomfort have gone and she is gaining flesh rapidly.	Recovery.	Brit. Med. Journal, March, 1900, p. 574.
26	Guinard . (C)	M.. 32	Symptoms had lasted for the last eight years.	Repeated hematemesis and dilatation of stomach.	Pyloric ulcer.	1. 28, 1892	. . . . .	Anterior-gastro-enterostomy. . .	Followed by a rapid disappearance of all symptoms and a gain in weight.	Recovery.	Comte: Med. Week iii, 39, p 459
27	Hartmann (A)	F... 30	. . . . .	Patient had profuse hematemesis.	. . . . .	12, 10, 1895	An induration was found one centimeter from pylorus.	Gastro enterostomy...	Died follow'g day; no peritonitis; specimen in Müller's fluid some time; small erosion found.	Death.	Table of Savariaud.
28	Hirsch (A)	F .. 25	Symptoms of ulcer for the last 4 years.	Great emaciation; intense anemia; profuse hematemesia in January and March.	Gastric ulcer.	3, 14, 1896	. . . . .	Exploratory gastrotomy. Digital palpation failed to reveal ulcer.	Weight increased 24 pounds. Hemorrhages returned later.	Recovery.	Berliner Klin. Woch 1896, p. 847.
29	Jonas, A. F.. . . (C)	M.. 31	[Laborer.] Had indigestion nearly four years.	Last year repeated attacks of hematemesis, gastric pain, obstinate constipation, occasional vomiting.	Ischochymia pylo. stenosis; chronic gas. ulcer.	. .	Pyloric obstruction: ulcer found in the line of pyloric incision.	Excision of ulcer; Heineke Mikulicz pyloroplasty.	. . . . .	Recovery.	Western Medical Review, vol. ii, 1897.
30	Jonas, A. F.. . . (C)	F... 21	[Servant.]	For 8 months severe attacks of hematemesis. All kinds of food cause pain. Stomach enlarged.	Ischochymia pylo. stenosis; chronic gas. ulcer.	. .	. . . . .	Heineke-Mikulicz operation. . .	. . . . .	Recovery.	Ibid.
31	Jonas, A. F.. . .	M... 32	[Butcher.] Father died of stomach trouble of 15 yrs. duration. Oldest brother complains of stomach trouble. Patient has had gastric disturbances for 15 years. About three years ago he vomited small quantities of blood, which increased in amt.	Painful and resistant thickening below right costal arch. Pylorus palpable as an indurated mass. Seems that the stomach is greatly distended with gas and fluid.	Ischochymia hemorrhage due chr'n. gas. ulcer. Non-malig. pylo. stenosis.	. .	Pyloric wall five-eighths of inch in thickness. Palpation revealed nothing further. Stomach could not be brought out of incision.	Heineke-Mikulicz operation; gauze drainage.	Case looked promising for 3 days. On 4th day died very suddenly. Postmortem showed stomach enormously dilated; contained a gallon of bloody fluid; many small ulcers; many little cicatrices: immediate cause of death, hemor. from small ulcers.	Death.	Ibid.
32	Keen, W. W . . (A)	F... 21	Previous good health. For two or three days before this attack had suffered with discomfort at pit of stomach.	Nov. 20. 1892, sudden vomiting on two occasions within 24 hrs. of between 2 and 3 pts. of bright red blood; Mar. 3 vomited suddenly 2 oz. pus; '93 to '97 had 4 attacks of hematemesis.	Ulcer of stomach.	3, 15, 1898	Nothing revealed at the operation save that the muscular and peritoneal coats externally could be picked up and separated from the mucous membrane with unusual ease.	Exploratory gastrotomy and excision of suspicious spot of ulcerated mucous membrane.	Severe hematemesis a few days prior to operation. Anemia so prolonged that operation was delayed until general condition improved.	Recovery.	Philadelphia Medical Journal, May, 1898.
33	Korte, W. . . (A)	. .	Profuse hemorrhage some time before operation.	A fresh hemorrhage demanded attention.	. . . . .	. .	Stomach adherent to pancreas; small ulcer to the left of vertebral column; impossible to remove on account of location.	Cauterization with thermo-cautery; spurting of blood from an ulcerated vessel arrested by sutures with great difficulty.	Patient died on the eighth day. Autopsy showed ulceration of splenic artery.	Death.	Berliner Klin. Woch., 1897, p. 929.

No.	Operator.	Sex. Age.	History.	Symptoms.	Diagnosis.	Date oper.	Conditions found at operation.	Operation.	Remarks.	Result.	Reference.
34	König, Jr. (C)	. .	. . . . .	Continual hematemesis	Gastric ulcer.	. .	Ulcer situated near the pylorus. .	Resection	The resulting cicatrix caused obstruction; abdomen re-opened; gastro-intestinal anastomosis; third celiotomy made necessary by closure of this opening.	Recovery.	Phila. Med. Journal, April. 1899, p. 929.
35	Küster, E.. (A) (C)	F. 23	[Daughter of day laborer.] Daily vomiting for years; improvement and aggravat'n fluctuat'd until Oct., 1893, when several hematemeses occurred.	Vomtting, profuse hematemesis, inanition from pyloric stenosis. Gastric dilatation.	Gastric ulcer. Pyloric stenosis.	8, 4, 1894	Ulcer 5 cm. deep near greater curvature; floor of ulcer large as half dol.; contained cherry stone; pylorus could not be discovered by the finger.	Cauterization of ulcer with thermo-cautery; subsequent gastro-enterostomy.	Hematemesis and pain ceased completely; patient rapidly increased in weight.	Recovery.	Verhand. der deutschen Gesellsch. f Chir. '94, 51
36	Küster, E.. (C)	M. 42	[Stone mason.] Healthy till 36th year; when pain and vomiting commenced; Jan. 12 he entered hospital; shortly after this gastric hemorrhages occurred.	Pain in epigastrium: vomiting; hematemesis; stools black, lower border of stomach three inches below navel.	Gastric ulcer.	6, 27, 1894	A tumor was felt on the posterior wall of stomach near the pylorus; a flat ulcer the size of a five-cent piece was seen; pyloric canal somewhat distorted.	Ulcer cauterized with thermo-cautery and a gastro-enterostomy performed.	Patient did well; August 9 had gained ten pounds.	Recovery.	Centralb. f. Chir. 1894, No. 51.
37	McArdle, J. S . . . (C)	F. 24	For two years had vomited after meals; hematemesis present; laparotomy done before for this condition, but no effort made to treat ulceration.	Pain; vomiting; hematemesis.	. .	. .	Pylorus pushed to the right and lower than usual; 1½ in. from this point, a 3-inch scar extended; chronic ulceration.	Gastro-enterostomy.	She takes coarsest food without experiencing any pain; no hemorrhages from stomach or bowels since operation.	Recovery.	Dublin Jour. of Medical Science, Feb, 1900
38	Mixter, S. J. . . . (A)	M. 57	Began to vomit blood 4½ years ago; continued for 30 days; 11 mos. later had the same kind of an attack.	Pain immediately after eating; vomiting of food and blood.	. . . . .	9, 18, 1888	Pylorus much thickened; owing to the very firm adhesions nothing could be done.	Exploratory gastrotomy; nothing else attempted.	Postmortem showed an oval ulcer on the posterior wall, which had eroded the pancreatico-duodenalis artery.	Death..	W. W. Connell: Bos. Med. Jo'r., 1889, p. 38.
39	Michaux... (A)	F. 30	No previous gastric symptoms. .	Profuse hematemesis October 20, 22, 23, 25.	. . . . .	10, 26, 1897	Stomach apparently healthy at the time of operation.	Gastrotomy; ulcer could not be found.	Hemor. recurred; death on 5th day; ulcer large as 50 cent piece on post. surf., involving mucosa; eroded arteriole was in center.	Death..	Dieulafoy: Presse Medicale, 1898, p. 31.
40	Mikulicz... (A)	F. 20	[Factory girl.] Symptoms of 1 year's standing; for the last eight days hematemesis provoked by the ingestion of the smallest quantity of milk.	Pain, vomiting, hematemesis; inanition; pulse 140; temperature 100.4° F.	Gastric ulcer.	2, 13, 1887	One litre of blood in the stomach. Round ulcer on posterior wall 8 to 10 centimeters in diameter; pyloric stenosis; stomach dilated.	Cauterization with thermo-cautery and pyloroplasty.	Death 50 hours after operation; autopsy showed peritonitis localized about the pylorus; sutures held well; hemor. not reproduced; duodenal ulcer.	Death..	Arch. für Klin. Chir., xxxvii, 79.
41	Mikulicz . (C)	M. 38	. . . . .	Symptoms of ulcer for one year; hematemesis.	Gastric ulcer	12, 5, 1889	Ulcer of posterior wall involving the pylorus.	Cauterization of ulcer; gastrorraphy.	Death from shock during evening of the day of operation.	Death..	Marion's Thesis, Paris, 1897.
42	Mikulicz . (C)	F. 21	. . . . .	Symptoms of ulcer for eight years; repeated hematemesis.	Gastric ulcer.	4, 22, 1894	Small ulcer at lesser curvature; erosion of coronary artery.	Resection of ulcer; curettage; perforation; suture.	In perfect health three years after operation.	Recovery.	Ibid.
43	Mikulicz . (C)	F. 42	. . . . .	Symptoms of ulcer for seven years; repeated vomiting of blood.	Gastric ulcer.	11, 15, 1894	The pancreas was invaded; the hemorrhage from one artery (not mentioned) considerable.	Cauterization; gastrorrhaphy. .	Died from shock during the evening of the day of operation.	Death..	Ibid.
44	Monod . . (A)	. .	. . . . .	Copious hematemesis; dilatation of stomach.	Gastric ulcer.	. .	The ulcer occupied the pylorus .	Anastomosis by Murphy's button, after retrofixation of the large omentum and colopexy by Doyen's method.	Rapid recovery followed; button passed on twelfth day.	Recovery.	J. R. Comte Med. Week, iii. No. 39, p. 459.
45	Murphy, J. B. . . . (C)	F. 51	Symptoms of 14 months' duration.	Emesis; hematemesis; emaciation.	Gastric ulcer.	7, 1, 1899	Abscess on posterior wall not disturbed.	Gastro-jejunostomy (Woelfler). .	Has gained very much in weight; all symptoms have subsided.	Recovery.	Sent to author in private letter.
46	Price, J.. . (C)	F. 31	Typical history of benign ulcer. For a year prior to operation she had frequently recurring small hemorrhages.	Hemorrhages, pain and progressive emaciation.	Gastric ulcer.	. .	Ulcer found at pylorus on posterior wall.	Partial gastrectomy; removal of ulcer and part of gastric wall 1 x 3 inches.	Recovery uneventful; is still living; no symptoms of stricture since operation.	Recovery.	Details sent to author.
47	Price, J.. . (A)	F. 37	Hemorrhages frequently repeated in Europe and after immigration to this country, where she was operated on largely on this account.	She had a fresh hemorrhage ab't 3 wks. before oper., leaving her so pale and anemic that operation was postponed until she became in better general condition.	Gastric ulcer.	. .	The ulcer was located on the anterior wall near cardia.	Partial gastrectomy; a portion of the stomach wall as large as the hand was removed with the ulcer.	Recovery uneventful; she is still in good health; no microscopic examination made.	Recovery.	Not reported; details sent to author.
48	Pringle. . . (A)	M. 38	[Vanman.] Has had colicky pain in bowels; for 1 week before admission had been drinking more than usual; admitted 4, 28, 1898 on account of severe and sudden hematemesis.	Hematemesis profuse; heart sounds feeble; pulse 120; pallor very great; black, tarry-looking stools; no pain.	. . . . .	. . 4, 21, 1898	Nothing abnormal found on interior or exterior of stomach; transverse colon distended and dark looking, apparently from blood in its interior.	Exploratory gastrotomy; not anything found.	Patient died 1½ hrs. after operation; 4 in. from pylorus is a small depressed area size of a 3c. piece; in center of this is an oblique opening into a large branch of gast.-epiploic artery.	Death..	Glasgow Medical Journal, vol. li, 1899, p. 5.
49	Robson, Mayo . . (A)	M. 38	Very weak and anemic; history of hemorrhage; severe; repeated twice in a week.	. . . . .	Chron. gastric ulceration with dilatation	. .	. . . . .	Gastro-enterostomy	. . . . .	Recovery.	Lancet, Mar. 10, 1900, p. 683.
50	Robson, Mayo . . (A)	M. 36	History of ulcer for more than a year; great loss of flesh and strength.	Severe hematemesis followed in 24 hours by a second attack; pulse 150; very anemic; feared death if bleeding recurred.	. . . . .	. .	. . . . .	Gastro-enterostomy...	Died on the tenth day of peritonitis; no recurrence of bleeding.	Death..	Lancet, Mar. 10, 1900, p. 683.
51	Roux. . . . (A)	M.	. . . . .	Hematemesis one litre, one-half litre, two litres, several days before operation.	. . . .	. .	Circumscribed ulcer on lesser curvature near pylorus.	Excision of ulcer; ligation of arteries of lesser curvature.	Lived several years; owing to reverse of fortune commited suicide; postmortem showed old erosion of coronary artery.	Recovery.	Congres de Chirurgie, 1893, p. 40.
52	Roux. . . . (A)	F.	. . . . .	Profuse hematemeses. Extreme weakness.	. . . . .	. .	Ulcer at lesser curvature.	Excision of ulcer; ligation of lesser curvature.	operation in perfect health.	Recovery.	riaud.
53	Rydygier . . (A)	M.	Gastric disturbances for six	Hematemesis on several occa-	. . . . .	1894	A loop of small intestine adherent to pylorus. The endeavor	Perforation temporarily closed; pylorus resected; open end of	At end of seven weeks the patient had gained 11 kilograms in	Recov-	J. R. Comte Med. Week, vol. iii, 39,

	(A)			Hematemesis one litre, one-half litre, two litres, several days before operation.			Circumscribed ulcer on lesser curvature near pylorus.	Excision of ulcer; ligation of arteries of lesser curvature.	Lived several years; owing to reverse of fortune commited suicide; postmortem showed old occlusion of coronary artery.	Recovery.	Congres de Chirurgie, 1893, p. 40.
52	Roux (A)	F.		Profuse hematemeses. Extreme weakness.			Ulcer at lesser curvature.	Double [illegible] lesser curvature.	operation in perfect health.		riaud.
53	Rydygier (C)	M. 48	Gastric disturbances for six years.	Hematemesis on several occasions.		1894	A loop of small intestine adherent to pylorus. The endeavor to detach resulted in perforation at point occupied by ulcer.	Perforation temporarily closed; pylorus resected; open end of duodenum was brought down into wound in stomach.	At end of seven weeks the patient had gained 11 kilograms in weight and digested all his food.	Recovery.	J.R. Comte Med. Week, vol. iii, 39, p. 459.
54	Salzer (A)	M.	Had a pyloric resection five years ago for pyloric stenosis; appetite good; well nourished.	Taken suddenly with violent vomiting of bright red blood.		6, 27, 1899	Stomach markedly adherent to anterior abdominal wall. Finger could not detect any abnormalities of surface or density of the gastric mucosa.	Exploratory operation; gastric fistula maintained for thirty days.	Died 32 days after oper. Beginning phlegmon of ant. abdom. wall and mesentery from leakage. Fresh ulcer on ant. abdom. wall. Eroded arteriole found, branch of cor. artery.	Death..	Eiselberg: Arch. f. Klin. Chir., 1889, p. 833.
55	Spencer, W.G. (A)	F. 37	For eleven years had had hematemesis without other symptoms; present attack culminated after several small vomits in one of 1½ pints, half of which was pure blood.	Sudden faintness; acute anemia. Partial unconsciousness.	Gastric ulcer.	11, 23, 1898	Puckered induration found two inches from greater curvature at junction of middle and pyloric thirds, with a pulsating artery, running to it about the size of the supra-orbital with a corresponding vein.	Arteries and veins ligated, and supposed ulcers tucked inward by a double row of continuous sutures.	Jan'y, 1900, came spontaneously to show herself in excellent health, not having had any hematemesis since oper. One week later had sudden profuse vom. of blood, 2 pints or more. Feb. 27, 1900, a gas.-jejunostomy was done; entirely recovered.	Recovery.	Details sent to author in private letter.
56	Spencer, W.G. (C)	F. 35	. . . . .	Hemorrhage the one important feature.	Pyloric stenosis; dilata. of stomach.	. .	. . . . .	Pyloroplasty	. . . . .	Recovery.	Details sent author; pri v'te lett'r.
57	Tubby, A. H. (A)	M. 27	Previous to August, 1898, had enjoyed good health; at this time he began to suffer from nausea and heaving; hematemesis occurred on the following dates: Sept. 13, large am't of blood (not measured); Sept. 6, 30 oz. caught and measured; Sept. 20, 40 oz.; Sept. 21, 20 oz.; he probably lost altogether one-third of the total weight of blood of his body.	Uncontrollable gastric hemorrhages.	. . . . .	9, 21, 1898	Patient almost moribund. Operation performed after transfusion and stimulation. On the posterior wall of the stomach, a spot was found, thin in the centre and indurated peripherally. Radiating from it were 3 or 4 thrombosed vessels. Patient at this time became collapsed.	A portion of the stomach wall corresponding to extent of the ulceration was pinched up hurriedly into fold; a continuous purse-string suture passed thro' fold at base, approximating mucous membrane to mucous membrane; sutures were applied near pylorus, 1 in. from the lesser curvature; abdomen filled with normal saline and then closed.	He rallied after the operation. On the 23d he vomited, but no blood was found in the vomitus. At no time did his pulse fall below 150 per minute, and his temp. remained subnormal. He died Sept. 30th, nine days after operation. Aut. showed that ulcer had been secured. There was no blood in the stomach or intestines.	Death..	British Medical Journal, 1899, p, 1267.
58	Tuffier (A)	M. 30	[Railroad employe.] Entered hospital for hematemesis; had suffered from gastric disturbances for more than ten years; a month ago the first hemorrhage from stomach occurred, followed by others on same day, all of which were abundn't; 2 days before comi'g to hospital had 3 copious hematemeses; the day before the operation there was considerable melena.	. . . . .	Gastric ulcer.	8, 10, 1898	The transverse colon was distended, black and opaque, being filled with blood. The ulcer was recognized across the posterior surface of the pylorus. The existence of a large group of lymphatic glands along the lesser curvature was also discovered. The first loop of jejunum was filled with blood, none being in the stomach.	Gastro-enterostomy (von Hacker's method.)	Death occurred five days later from sub-acute general peritonitis. Autopsy showed a perforation the size of a dime on the posterior surface of the pylorus. Sutures were intact.	Death..	Details sent in private letter to author.
59	Tuffier (C)	F. 25	. . . . .	Uncontrollable hematemesis.	. . . . .	. .	Induration found at the pylorus; encroaching upon anterior surface of stomach. Patient too cachectic to allow of resection.	Gastro-enterostomy	Since the operation the patient has never vomited.	Recovery	La Semaine Medicale, p. 482.
60	Tuffier (C)	M. 39	. . . . .	Uncontrollable hematemesis which had led to a grave cachexia.	. . . . .	. .	At the level of the lesser curvature an indurated portion was felt, adherent to liver.	Gastro-enterostomy	Died from accidental septic complications, nature which were determined at aut. Gangrene of that portion of liver which had been adher. to lesser curv.	Death..	Ibid.
61	Tuffier (C)	F. 40	[Working woman.] Entered hospital for hematemesis; digestion for some time had been good; 7 dys. before admission experienced sud. severe pain in left hypochondrium, radiating to back; she vomited blood several times.	Painful hematemesis, dilatation and tenderness on pressure.	Gastric ulcer.	8, 6, 1898	Stomach and duodenum dilated, pylorus permeable. Neither tumor or lymphatic enlargement at any point.	Gastro-enterostomy (von Hacker's method).	The patient left the hospital Sept. 9, 1898, her appetite and digestion being very good. No hematemesis.	Recovery.	Details sent in private letter to author.
62	Tuffier (C)	M. 42	[Quartermaster.] Entered hosp. for hematemesis; small hematemeses at distant intervals for 3 yrs.; 18 mos. ago severe gastrorrhagia and vomiting of a pint of blood; hemorrhage was renewed several hours later; next day he had another hematemesis, after which he improved; 6 mos. ago another hematemesis not as severe as the preceding one.	. . . . .	. . . . .	2, 10, 1898	A slight induration accompanying a slight constriction of the pylorus, noticed.	Posterior gastro-enterostomy..	Patient improved rapidly; at no time has he had any trouble with his stomach since operation. The patient, who was a syphilitic, followed rigorously the specific treatment under which he had been placed. March 15, 1900, in excellent health.	Recovery.	Details sent in private letter to author.
63	Van Kleef (A)	F. 37	Had suffered with gastric disturbance for fifteen years; came under my care in 1876.	Dilatation of stomach. Periods of violent gastralgia vomiting. Several severe gastric hemor.	Gas. ulcer. Pyloric stenosis.	1. 27. 1882	Pylorus very much contracted. Round ulcer one centimeter in diameter on anterior wall.	Resection of the pylorus..	Patient made an excellent recovery and gained in weight.	Recovery.	Centralb.f. Chir., 1882. Band.ix,46.

Acute and chronic cases are designated by (A) and (C) under name of operator. Several cases are border-line ones, but we have tried to classify them as accurately as could be done from the information given.
One case of Küster's is so doubtful that it is counted as being both acute and chronic. One case is not counted in either class (Guilford's, No. 21).

hemorrhage, operation having been done in a condition of extreme anemia in all of them, as in the cases of Roux, Robson, Caxin, Andrews, and two of Armstrong's cases. There have been thirty-two operations for acute hemorrhage with thirteen deaths or 40.6 per cent. mortality, a much better showing than was made by Mayo Robson, who reported a smaller number of cases, and included also among them cases of vicarious menstruation and post-operative hematemesis, neither of which has any direct etiologic or other connection with gastric ulcer. It will be seen from a glance at the tables—appended—that many operative procedures have been carried out in the treatment of gastrorrhagia, and to those sufficiently interested to study them, the symptoms, condition found at operation, method of operation, and result of each case are given. I wish here to give full credit to my assistants, Drs. W. Hersey Thomas and Stillwell C. Burns, for most valuable assistance rendered in the collection of data and preparation of the tables.

It will not be my purpose here to review the merits of all of the many operative procedures that have been undertaken for the arrest of gastric hemorrhage. This would interest surgeons chiefly, and they will find all information desired in the tables herewith presented, or in an analysis of them by the author in a paper read before the American Surgical Association on May 1, last. Of the dozen methods practiced, the three best are pylorectomy or partial gastrectomy, according to the site of the ulcer, gastroenterostomy, and ligature en masse of the gastric mucosa. The first is ideal surgery, preventing possible perforation and malignant degeneration; the second is practical and oftentimes the best surgery, stopping hemorrhage and favoring cicatrization of the ulcer by putting the stomach at rest; while the third is frequently the most desirable way to end an exploratory gastrotomy when the site of the bleeding vessel was unknown until the stomach was opened. Each method has given good results, but for many reasons the second has been preferred in a majority of instances, and of the many ways of performing gastroenterostomy the posterior or Von Hacker's method with the Murphy button has been, and should be, generally chosen. While hemorrhage per se as a symptom of gastric carcinoma has not, so far as I know, led to an operation, there can be no doubt that in certain cases it will be either so free or of such frequent recurrence as to make one desirable.

Resection, if practicable, is best, but gastroenterostomy would not only arrest the bleeding, but usually delay the inevitable end, and bring about a decided amelioration of all the distressing symptoms. Indicated as it often is in advanced carcinoma without hemorrhage, the presence of the latter as a symptom should be an additional reason for surgical intervention.

Cirrhosis.—Hemorrhage into the stomach is a frequent symptom in cirrhosis of the liver, and death resulting therefrom can not be considered as rare. Preble,[12] of Chicago, has recently reported 60 cases of fatal hemorrhage—3 in his own practice, 1 in that of a colleague and 56 collected from literature. The diagnosis in all was verified by autopsy. After a careful analysis of these, a full history of each being given, he draws some interesting and striking conclusions: 1. Fatal gastrointestinal hemorrhage is an infrequent but not rare complication of cirrhosis of the liver. 2. In a great majority of the cases the cirrhosis is atrophic, but it may be hypertrophic. 3. In one-third of the cases the first hemorrhage is fatal; in the other two-thirds the hemorrhages continue at intervals of over a period varying from a few months to several years, the maximum given being eleven years. 4. In one-third of the cases the diagnosis can be made at or before the time of the first hemorrhage. In the other cases the diagnosis can not be made at all or only after a few months or years, during which time other symptoms of cirrhosis have developed. 5. Esophageal varices are present in 80 per cent. of the cases and in more than one-half of the 80 per cent. the varices show macroscopical ruptures, and it is probable that many other ruptures would be found if the varices were tested by injection of air or fluid. 6. Fatal hemorrhages occur in cases which show no esophageal varices, and they are probably due to the simultaneous rupture of many capillaries of the gastrointestinal mucous membrane. 7. The hemorrhages in this class of cases are usually preceded by other symptoms of cirrhosis, but the first symptom may be a fatal hemorrhage. 8. In 6 per cent. of the cases which show esophageal varices was the cirrhosis typical, i. e., showed ascites, enlarged spleen and subcutaneous abdominal varices."

It is certainly interesting to learn that the diagnosis of cirrhosis can be made in only one-third of the cases at the time of the first hemorrhage. A study of Preble's cases along with those collected by Savariaud[13] impresses one with the possibility of an unexpected and fatal gastric hemorrhage in the course of either a latent gastric ulcer or cirrhosis.

I am also impressed with the belief that several of the cases reported as having been operated on for diffused or capillary hemorrhage complicating ulcer were really instances of venous hemorrhage into the stomach on account of an obstructed portal circulation due to cirrhosis. Such cases do not, and can not give as good operative results as in ulcer.

Treatment.—It has been suggested that as esophageal varices are the cause of a large per cent. of the gastrorrhagias complicating cirrhosis, pressure should be made on the ruptured varix or varices by introducing a rubber bag into the esophagus and distending it with water or air. This suggestion, so far as I know, has not been carried out. The objections that one can urge against it are manifold: 1. It is questionable whether pressure can be sufficiently protracted in this way to be of benefit. 2. In only 6 per cent. of the cases showing esophageal varices was the cirrhosis typical, and therefore easily diagnosed. It is certainly unsafe to formulate a treatment which at best has only a chance to reach a comparatively small number of cases. 3. The esophageal veins are part of the systemic, while those returning blood from the gastric mucous membrane are of the portal circulation. Therefore, it would seem, *a priori*, that dilatation of the esophageal veins could not occur until there was primarily marked dilatation of the venules of the gastric mucosa, and secondarily enlargement of the connecting veins between the two systems. 4. Hemorrhage from the stomach may result from so many causes that nothing in the way of surgery short of gastrotomy—which discloses the source of the hemorrhage—or gastroenterostomy—which by draining the stomach and placing it at rest, may stop the bleeding—would seem to be indicated.

There can be no reasonable doubt, however, that operations for gastric hemorrhage in cirrhosis have a less promising future than the same procedures in bleeding ulcer; for in the former there is in addition that general hemorrhagic tendency that makes bleeding from any sit-

ation most difficult to arrest. We have all realized this, nd know how hard it is to permanently control the pistaxis of a cirrhotic patient. Still, while mindful f the difficulties in the way of success, I believe that ith limitations surgical intervention may properly be onsidered. No operation has as yet, so far as I know, een deliberately performed where the diagnosis of cirhosis had been made. Several of the cases reported and perated on as hemorrhagic ulcers may have been—probbly were—instances of cirrhosis.

A study of Preble's cases makes it sufficiently clear hat in many instances it is simply impossible to diagnose between the hematemeses of ulcer and cirrhosis. One of them (Case 36), a young woman in her usual health, suddenly vomited a large amount of blood, and a diagnosis of ulcus ventriculi was made without reservation. At autopsy it was found to be a marked case of cirrhosis, and no evidence whatsoever of ulcer could be discovered. The opposite error can as easily be made, as evidenced by Preble's report of two cases seen at the Cook County Hospital with Drs. Walker and Ochsner: "Both were men between 40 and 50 years, hard drinkers for many years. Both vomited a large amount of blood while at their usual work and in their usual health. Neither had any gastric disturbances other than could be referred to the chronic alcoholism. In both the physical examination was negative. There was no change in the hepatic dulness, no splenic tumor, no ascites, no superficial varices, no localized or diffused epigastric tendernesss. The hematemesis continued over a few days, till death. Were they cases of gastric ulcer or obscured cirrhosis of the liver? The general condition of the patients was so good as almost to exclude any thought of carcinoma. The age, sex, and lack of gastric symptoms spoke against ulcer. The negative physical examination spoke against cirrhosis. Fatal hemorrhage from either cause is rare. The post-mortem examination showed that both were cases of gastric ulcer, and the eroded vessel could be seen on the base of the ulcer. There was no suggestion of any change in the liver."

VICARIOUS MENSTRUATION.

There has been a more or less general sentiment, if not positive conviction, on the part of a majority of the profession, that vicarious menstruation may manifest itself in the way of hematemesis. Such was, too, until recently the general teaching, and there are not wanting those who still believe in the possibility of such an occurrence. If it does happen, one would naturally think that it would be in young women whose ovaries and tubes have been removed, or in women submitted to hysterectomy, the appendages being left, and who can not therefore, menstruate in the natural way. I have written to fifty prominent gynecologists and surgeons to learn if they had seen, and if so how frequently, instances of vicarious menstruation showing itself by hematemesis following removal of the appendages, uterus, or both. Nearly all have answered, and it is a significant fact that only two have reported—each a single case—affirmatively. Yet these operations are very common, one of them having been for many years probably the most frequently practiced surgical procedure. Many of the writers have expressed a positive conviction that vicarious menstruation does not occur. It would seem, therefore, that what has hitherto been a vague impression with most of us is not corroborated by a careful examination of a large number of cases, where it should if it ever occurs.

POST-OPERATIVE HEMATEMESIS.

I can not find, in any of the text-books on surgery at my command, reference to post-operative hematemesis. It must therefore be rare.

Mayo Robson,[14] in his Hunterian lectures, states that he has encountered it in seven cases of his own, two being fatal, and refers to a similar experience of Eiselberg, who reported to the surgical society in Berlin the details of six cases. It is significant that nearly all of those reported by Robson and Eiselberg were instances of operations on the intestines, omentum, and structures adjacent to the stomach. The anesthetic could not have been responsible for the vomiting of blood, for in one of Mr. Robson's cases cocain was used, and a cholecystotomy for carcinoma of the bile-ducts completed in fifteen minutes. In several others there was no vomiting after the operation. Robson states that in six of the cases the omentum was ligated, and in another it was probably contused. He also says that "in an experiment on an animal multiple hemorrhages into the stomach followed twisting of the omentum."

Mr. Robson has also kindly given me, in a letter, details of a case of stab wound of the abdomen. He says: "I explored the abdomen for a stab wound, and as the patient was vomiting blood, I expected to find a wound of the stomach, but discovered no perforation of the stomach walls, though I had to ligate the superior mesenteric vein, the patient making a satisfactory recovery. The hemorrhage was doubtless due to bruising of the mucous membrane without rupture of the peritoneal coat." The explanation given of the hematemesis in this patient is satisfactory and rational, and could not well have resulted in any other way. I do not, however, understand why operations on the omentum should cause post-operative hematemesis, as I can see no anatomic explanation for it. At first it would seem theoretically that twisting the omentum might force into the venules of the mucous membrane an amount of blood which they could not accommodate, and some weak vessel give way, causing hemorrhage into the stomach, notwithstanding the great capacity of veins to undergo enormous dilatation without rupture.

I have, with the assistance of Drs. Burns and Woody, experimented on four dogs, endeavoring to, if possible, cause hemorrhage into the stomach by rapid and severe traumatism not applied to the stomach itself.

In Experiment 1, a large dog was chloroformed, the omentum twisted into a rope, ligated high up, and then resected. The stomach was at one time cut into and there was no suggestion of even hyperemia from cardia to pylorus. The stomach was removed, tacked on a board and photographed at once by Dr. Kassabian.

In Experiment 2, a medium-sized young dog was chloroformed, the omentum twisted rapidly into a rope, and ligated high up. In addition, I squeeezed the spleen and pancreas so forcibly that I ruptured the former to a slight extent, hoping by the compression to force enough blood from these organs whose blood-supply is so intimately connected with that of the stomach, into the gastric mucosa, to cause rupture of some of its vessels. The stomach was immediately opened and found to be perfectly normal in every respect, quite as much so as in Case 1.

In Experiment 3, the dog was chloroformed, the omentum twisted into a rope, and the small intestines were compressed and squeezed far more than would, or could, be done in any operative procedure, Dr. Burns at

the same time compressing the liver so as to interfere with the portal circulation. The stomach was then rapidly opened and found perfectly normal. The dogs were not allowed to come from under the anesthetic, and in all the stomach was quite empty, food having been withheld for some hours.

In Experiment 4, a medium-sized female dog was chloroformed, the omentum twisted into a rope, ligated high up and resected. The wound was then closed with ordinary aseptic precautions, and the animal made a rapid and painless recovery. There was no vomiting of blood or blood in the feces at any time during the three weeks that the dog was kept under close observation in the laboratory. She ate well soon after coming from under the chloroform, and never had a bad symptom.

Of the fifty surgeons written to, only nine have seen post-operative hematemesis. Three operators, Johnston, of Richmond, Parish, of Philadelphia, and Wathen, of Louisville, have had one case of gastrorrhagia following hysterectomy. All occurred within a week after operation, one being fatal. Clarke and Noble, of Philadelphia have each seen fatal hemorrhage from duodenal ulcers after operation. The former does not give the exact nature of the operation, but it was intrapelvic. Noble states that his patient was a woman about 60, operated on for ventral hernia. Hemorrhage that was quickly fatal occurred on the tenth day after operation. Autopsy showed a marked duodenal ulceration. Noble and Wathen have each had a fatal case of hemorrhage after nephrorraphy. Noble operated on both kidneys in a young woman. Death occurred on the twelfth day, as a result of hemorrhage from the stomach and bowels. No autopsy was allowed. Wathen's patient was a highly neurotic young woman. She began vomiting blood more than a week after operation, and died two or three days later. There was no autopsy. Johnston has also reported cases of hematemesis following operations for ovarian tumor with a twisted pedicle, suppurating ovarian cyst, strangulated hernia, and extrauterine pregnancy. The first three were fatal and accompanied with general peritonitis; the last recovered. Three others have seen post-operative hematemesis, but it followed operations on the stomach itself; these were apparently cases of secondary hemorrhage, and are, therefore, excluded. I have been particular to make inquiries as to the frequency of hematemesis after hernia operations, as Robson and Eiselberg have both seen it. Of fifty surgeons written to, only two have encountered it, and one of the cases was a strangulated hernia with general peritonitis. The other was a patient operated on for ventral hernia, and who died from a demonstrated duodenal ulcer.

In more than a hundred herniotomies—strangulated and nonstrangulated cases—I have never encountered it. It is possible to quote from only a few of the many surgeons communicated with. W. T. Bull, of New York, writes: "I have never seen hematemesis after any operation. I fancy I have had 650 herniotomies." W. B. de Garmo writes: "I have never seen in any of my own cases one of hematemesis following operation. In replying to your second question I would say, I have done 653 herniotomies; of these 573 have been by the Bassini method for the cure of inguinal hernia." W. B. Coley, of New York, says: "I have never seen a case of post-operative hematemesis. I can not tell how many cases I have removed omentum but in a large number. You could say that in over 700 cases of hernia operations I have never seen it." J. M. T. Finney, of Baltimore, writes: "In my own personal experience, I can not recall an instance of post-operative hematemesis following hernia or any other operation in which the omentum was involved, nor have I known of any taking place in the Hopkins Hospital."

The sum total of all the hernia operations done by the fifty surgeons to whom I have written must be many thousands, and yet but two cases of post-operative hematemesis are reported, and each has been satisfactorily explained, one patient dying of peritonitis following strangulated hernia, the other from a duodenal ulcer demonstrated by autopsy. All of the cases seen by Robson and Eiselberg followed intra-abdominal operations, such also being the case with all post-operative hematemeses reported by American surgeons, excepting two cases where nephrorraphy had been done. In doing nephrorraphy the peritoneum may, in the first place, be incautiously opened by the most careful operator, and secondly, there is always a considerable amount of traumatism necessary to force the kidney into the lumbar incision. It is not, therefore, difficult to understand how a hematoma may easily be produced by the great abdominal pressure oftentimes necessary to bring the kidneys into view, and how, furthermore, this extravasation may occasionally cause sapremia, septicemia, or peritonitis according to circumstances. All septic conditions favor disintegration of the blood-corpuscles and predispose to hemorrhage from mucous surfaces. The gastric mucosa is particularly liable to congestion in conditions of sepsis, both on account of the marked tendency of the thin and more or less disintegrated blood to settle in the internal organs, and the vomiting and retching so frequently present.

We have in this a satisfactory explanation of the rare hematemeses following abdominal operations, and have shown that even violent traumatism to the omentum, intestines, spleen, pancreas and liver did not produce immediate hemorrhage into the stomach in any of the dogs experimented on, and it does not seem unreasonable to suppose that delayed hematemesis will usually depend on disintegration of the blood due to sepsis.

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SUPPOSED INCREASE OF DISEASES OF NERVOUS SYSTEM AND OF INSANITY.—In a recent issue of the *Lancet* (May 26), Professor Erb has been quoted as saying that this increase is due to the causes of nervous irritation and depression, the greater anxiety, hurry and mental toil, the overtasking at school, the increased amount of work necessary to enter the learned professions, the more exciting nature of man's amusements, the more stimulating character of his diet, the restlessness incident to travel—all tending to lead to a nervous breakdown. An increase has been noted in England, America and Sweden, but none in Scotland.

Address.

SECTION ON STOMATOLOGY.

ADDRESS OF CHAIRMAN.*

BY M. H. FLETCHER, M.D.

CINCINNATI, OHIO.

The compliment of having been elected as your Chairman is highly appreciated, but the pleasure is largely counteracted by my inability to return something of value to you in the form of scientific research. I have partly finished a series of investigations on the formation of bone from periosteum, and cementum from the pericementum, but press of other matters did not allow time for their completion, so their results will have to be presented on another occasion.

The symposiums on "Dental Education" and "Interstitial Gingivitis," which are to take up most of the time of this year's meeting, are especially important to us.

Much to the credit of our specialty, it may be said that the past five years have seen great advancement in teaching dentistry, as is shown for instance, by the proceedings of "The National School of Dental Technics." Advancement in the branches discussed at this school, apparently has stimulated greater effort in other departments of dental pedagogics.

As to the diseases of the tissues about the teeth, much can be said at the present time, but it is probable that many more facts will be in our possession at the end of another decade, for to-day finds in the ranks of our specialty, a greater number of trained scientific investigators than ever before, and many of them are giving much attention to the tissues under discussion, both histologically and pathologically, all of which will bring its fruit in due time.

Among other points which are unsettled about this subject is the nomenclature; and the present year seems especially fruitful in new names. When there is a choice of ways, the laws of natural selection usually prevail, and the survival of the fittest is the result. In order that Nature may have an abundance of material from which to select, I wish to add to the already long list of names under discussion, by nominating a term which may be old, but which seems to me to be the one of natural selection as compared with the others suggested, namely, "peridentitis."

"Pyorrhea alveolaris," indicating a flow of pus from the sockets of the teeth, is clearly a poor choice. "Alveolitis" or "chronic alveolitis," suggested by Dr. Henry Nash, does not seem to cover the case in a generic way much better than the former, since the socket, or bone, indicated by the word "alveolitis" is only a part of the tissues involved. The term "interstitial gingivitis," used by Talbot, is admitted by him to be deficient, and it seems especially so as to the term "gingivitis," since this name clearly indicates the gums and no other tissue, whereas all the tissues about the teeth may become involved; so we apparently need a generic name composed of one word in order to be acceptable, and this demand seems to be met in the term "peridentitis," for the following reasons: *Peri* is a Greek term of Latin origin, meaning around, about, or near; *dent,* or *dens,* is the Latin for tooth, and also a Greek term of Latin origin, and a termination used in modern pathologic nomenclature, to signify inflammation of the part indicated. A comparable term to this is that of "periadenitis," indicating inflammation of the tissue surrounding a gland.

The adoption of "peridentitis" or some comparable term used as a generic name, admits of the use of descriptive adjectives for the varieties, specific stages, or pathologic conditions of the tissue surrounding the teeth; for example, acute peridentitis, or chronic suppurative, sloughing, necrotic peridentitis, indicating death of bone, etc.

This term is distinguished from pericementitis, which indicates an acute stage of inflammation of the peridental membrane; and from our standpoint, seems to fulfil the demands in the case, being quite comparable to terms adopted for similar descriptive use in other parts of the body.

*Presented to the Section on Stomatology, at the Fifty-first Annual Meeting of the American Medical Association, held at Atlantic City, N. J., June 5-8, 1900.

Original Articles.

DENTAL AND ORAL SURGERY.

ITS RELATION TO THE GENERAL FIELD OF MEDICINE AND SURGERY, AND THE TRUE PROFESSIONAL STATUS OR RANK OF THE PROPERLY EDUCATED PRACTITIONER OF DENTAL AND ORAL SURGERY.*

BY N. S. DAVIS, M.D., LL.D.

CHICAGO.

The American Dental Association was organized in Washington, D. C., in July, 1860, by twenty-three delegates representing the chief dental societies and dental colleges then existing in the country.

The fifth annual meeting of the Association was held in Chicago during the last week in July, 1865, and its members were welcomed in a brief but excellent address by the late W. W. Allport, D.D.S., M.D., of that city. On the evening of July 27, 1865, during the annual meeting, I had the pleasure of entertaining the members in my own home, and was called on to respond to the following sentiment offered by Dr. C. W. Spaulding, then president of the Association: "To the President of the AMERICAN MEDICAL ASSOCIATION, Medicine, Surgery, and Dentistry, departments of a common science, their disciples should constitute a common brotherhood."[1] I can not now, after thirty-five years have passed, give a better expression of my present views concerning the true relations of dental and oral surgery to the general field of medicine than by quoting a large part of the response made by me on that occasion, as follows: That medicine, surgery, and dentistry are actually departments of a common science, very few will be disposed to deny. I say a "common science" in deference to popular custom. It would be more proper, however, to use the plural form of expression, for what is generally styled medical science is really an aggregation of many sciences and their cultivation with direct reference to the prevention and alleviation of human suffering. The science of medicine properly so-called consists of facts and principles selected from every department of the natural sciences, from philosophy, psychology, political and social economy, and their application to the elucidation of the causes, nature and treatment of such diseases, deformities and injuries as are liable to afflict our race. Therefore, the student of medicine in its general sense

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1. Chicago Medical Examiner, September, 1865, p. 576.

is emphatically a student of Nature. And not only so, but he studies the broad fields of Nature for the highest and noblest of temporal objects, namely, to qualify himself for mitigating or relieving the imperfections, deformities and diseases of his fellow men, whether they occur in the teeth, the organs of special sense, the extremities, or the more vital organs within the body.

Medicine, surgery and dentistry are all based on chemistry, anatomy, physiology, pathology and materia medica. Without chemistry and anatomy no one of you as dentists can know either the composition or structure of a single tooth, or its connection with the jaws, gums, blood-vessels, nerves, etc. Without physiology no one could know the natural uses and influences of the several parts just named or the relations of the teeth to the whole processes of digestion, assimilation and nutrition.

As pathology bears the same relation to organized structures in an imperfect or diseased condition as physiology does to them in the natural, so without a knowledge of it, neither the physician, surgeon nor dentist could know anything of the origin, nature and tendencies of the diseases and defects he professes to treat. The materia medica in its full scope includes everything that can be made useful in the mitigation or removal of any of the ills to which our race is liable. The gold that fills the cavity in a tooth, the wash that soothes an irritated gum and the instruments used for adjusting them are as much a part of the materia medica as are the pills and powders administered by the physician.

Consequently, these five branches of medical study are fundamental, and no man can do full justice, practically, to the most limited specialty without a thorough knowledge of them all. Every member of the American Dental Association will doubtless acknowledge that a dentist certainly understands the composition, structure and mode of development of the teeth, together with the causes that render their development defective or induce in them disease and decay. But in every tooth, you have three of the five primary forms of living, structural organization, namely, the fibrous, vascular and nervous, with the peculiar arrangement of inorganic matter to give it solidity.

A knowledge of these structures, whether chemically, anatomically or microscopically, involves a knowledge of the same structure in all other parts of the body. To understand development of a tooth and its appendages from materials furnished by the blood involves a knowledge of the blood itself and of all the laws that govern the intricate processes of assimilation, nutrition and disintegration in living structures generally.

The same remark applies with equal propriety to the causes of imperfections and diseases of the dental organs and the means for remedying them. Therefore, so far as dentistry involves scientific knowledge, as distinguished from a mere mechanical art, it rests on the same foundations and necessarily involves the same series of studies as all other departments of medicine and surgery. The various organs and structures of the human body are not as so many isolated parts, the functions and diseases of which have no influence on each other, but they are so intimately connected and mutually dependent, that not a single morbid impression can be made on one organ that will not exert some modifying influence on all the rest.

The same heart sends the blood to every organ and structure of the body. The same nerve-centers radiate the delicate threads that are to impart sensibility or to command motion in the remotest part of our organization. And the same vital properties pervade every living atom. Every link in the chain of actions constituting digestion, assimilation, nutrition, disintegration and excretion is so connected that not one can be broken without embarrassing the action of the whole. Consequently, it is not possible to comprehend the nature, tendencies and results of the diseases of one organ without studying their influence on all the others, and vice versa. There can be no such thing, therefore, as specialism proper in the study of pathology or the nature of diseases. The whole field must be studied before any one of its parts can be fully understood.

There is still another aspect of this subject that is worthy of a moment of thought. From the nature of the laws that govern mental processes, exclusive practical attention to any one department of a general subject tends to contract and bias the mind by giving undue relative importance to one series of facts, while neglecting another series of equal importance. An evil of much greater magnitude, however, consists in the strong tendency of specialism to encourage incompleteness of professional education. During a connection with medical teaching for sixteen—now more than fifty—years I have rarely found a student who on his final examination proved himself ignorant of some important department without his alleging that he did not intend to practice that particular department and consequently had paid less attention to it. Indeed, incompleteness of education leading to the adoption of partial and restricted views and the universal tendency to neglect whatever is not intended to be turned directly to practical pecuniary advantage constitute the foundation of a large part of the evils that exist in the professions of our country. During the thirty-five years that have elapsed since the first expression of the foregoing views the last-named evil has been developed to an extraordinary degree. Instead of a few divisions of the wide field of medicine, we have seen it cut into almost as many specialities as there are organs or groups of organs in the human body. And we are told that every individual member of the profession should limit his study and practice to some one class of diseases, or to the diseases of some one organ or group of organs. By thus concentrating attention upon a limited number of diseases or injuries, it is claimed that greater skill will be acquired in their treatment and greater advancement in our knowledge of their nature and tendencies. It is also claimed that the whole field of medical sciences with their practical application is so extensive that it is impossible for one man to so master the whole as to properly qualify himself for the practice of all its departments.

This process of reasoning is plausible and to a limited extent true. It is true that in all the mere mechanical arts, the greater the division of labor, and the more perfectly each man is restricted to a certain series of movements, the greater will be the accuracy and skill acquired in their performance.

The dentist who restricts his work entirely to the processes of filling teeth may possibly acquire greater skill in that particular work—provided he has enough of it to do—than he would if in addition he extracted teeth, fitted artificial teeth, treated diseases of the mouth, etc.

The surgeon who restricts himself entirely to the more important and delicate operations on the eye, or the ear, or the blood-vessels, may acquire greater dexterity in performing these operations than if he attended

the whole field of operative surgery. But the rule applies only to such operative procedures as are essentially mechanical, and can not be extended to the treatment of the diseases of particular organs without causing much more evil than good, simply because there is no living structure or organ in the body so isolated that its functions both in health and disease are neither influenced by other organs nor by the general functions of the tissue metabolism. Yet to such an extent has specialism been carried, both in education and practice, that we have special colleges not only for the education of dentists, but also for midwives, for psychoneurologists, for electrotherapeutists, for psychopathists, for physicopathists, for osteopaths and even evening or night colleges for the accommodation of those who are obliged to pursue some other occupation for a living during the day. In consequence of all this special or one-sided education, it is quite common to see patients suffering with headaches, indigestion and general prostration vainly treated week after week by local applications to the vagina and neck of the uterus when all they needed was fresh air, judicious exercise and proper diet; or patients suffering with plain scrofuous ophthalmia and being treated exclusively by local applications to the eyes until the edges of the eyelids are being denuded and the cornea ulcerated, when the prompt internal administration of alteratives and tonics in the beginning would have soon removed the whole difficulty; or patients with decaying teeth, diseased gums and aphthous sore mouths being treated solely by teeth cleaning, mouth washes or powders and local anesthetics to relieve pain, when the whole trouble depended on faulty assimilation and imperfect nutrition. Another consequence is that every family, instead of one, needs from six to ten doctors to supply its needs properly. There must be a special obstetrician to see that the children are born properly; another for diseases of the children; a third for the diseases of the mother; a fourth for those of the father; a fifth for the eyes; a sixth for the ears; a seventh for the nose, throat and air-passages; an eighth for the lungs and heart; a ninth for the nervous affections; a tenth for the teeth, etc.

Doubtless before this you are ready to ask if I oppose all specialists in the medical profession. I answer, "by no means." There is a natural basis on which a limited number of specialties can be founded with great advantage; and which indeed develop themselves by the natural and inevitable course of circumstances. For instance, the diseases, deformities and defects of the dental organs, involving no immediate changes to life and requiring for the treatment of many of them a special mechanical manipulation, naturally and almost necessarily constitute a special department of surgery—a department, indeed, that should be regarded as equal in importance and dignity and consequently requiring equal education with every other branch of the profession. Those conditions of the eyes requiring delicate and dexterous operations are also mostly chronic and allow the patient time to seek and obtain the services of men who have acquired more than ordinary skill in the performance of such operations. The same is true of those conditions requiring the most dangerous and difficult surgical operations on other parts of the body, such as lithotomy, ovariotomy, the ligating of large and deep-seated arteries for aneurysms, etc.

Hence it is eminently proper that in all large cities where the required opportunities are afforded, men should devote special attention to such departments. But this can never justify or excuse any class of medical men for being content with only a partial medical education. In strict harmony with the foregoing views, several of the leading dentists in New York, Chicago and other cities, who had studied medicine as a whole and received the degree of M.D., became members of the local medical societies; and from these they were sent as delegates and became members of the AMERICAN MEDICAL ASSOCIATION. They were not only treated as actual members of the "Common Brotherhood," but at the annual meeting in Richmond, Va., in 1881, on the motion of the late Dr. Samuel D. Gross, seconded by Dr. L. A. Sayre and myself, a section of dental and oral surgery was created on the same footing as all the other Sections of the ASSOCIATION. The Section was organized by the appointment of Dr. D. N. Goodwillie, of New York, as chairman, and Dr. T. W. Brophy, of Chicago, as secretary, and it has maintained an active and honorable existence to the present time, as your presence here to-day abundantly attests. To still further promote the union of dentistry with all the other legitimate departments of medicine and surgery, at the annual meeting of the AMERICAN MEDICAL ASSOCIATION in Chicago, in 1887, the following resolution was adopted by nearly a unanimous vote:

Resolved, That the regular graduates of such dental schools and colleges as require of their students a standard of preliminary education and a term of professional study equal to the best class of the medical colleges of this country and embrace in their curriculum all the fundamental branches of medicine, differing chiefly by substituting practical and clinical instruction in dental and oral medicine and surgery in place of clinical instruction in general medicine and surgery, be recognized as members of the regular profession of medicine, and eligible to membership in the ASSOCIATION on the same regulations as all other members.

Obviously there is no more propriety in having a separate profession of dentistry, than there is of ophthalmology, or neurology, or gynecology. The same standard of preliminary education and the same curriculum of medical studies covering the four years' course should be required of all who propose to practice in any of the departments or specialties of medicine and surgery. All should be required to pass the same rules, both ethical and legal. Let there be in every medical college faculty a professor of dental and oral pathology and practice on the same basis that you have a professor of ophthalmology, neurology or gynecology.

The instruction by an efficient occupant of such a chair is needed as an important aid to every practitioner of medicine, whether his field of practice is in the city or the country. For if he never attempts to treat a defective tooth or a diseased gum, he should be able to recognize the existence of such conditions and promptly direct the sufferers to those who would treat them. And for those members of the college class who intend to make dentistry their special field of practice, it would only be necessary to supplement their general course by from six to twelve months of post-graduate mechanical and clinical dental work, as do most of those who choose other specialties after their graduation. By thus unifying all departments of medical and surgical practice, including dentistry, under the same educational standards and the same title of Doctor of Medicine, the influence of the profession would be increased. Better economy could be practiced, inasmuch as it would dispense with the necessity for providing separate laboratories and professorships for teaching dental students

the fundamental branches of medical science, as well as separate state boards of examiners, and some embarrassments pertaining to professional rank and position would be removed.

At the first annual meeting of the Section, in connection with the AMERICAN MEDICAL ASSOCIATION, in 1882, one of its members presented an interesting paper on the importance of having dental practitioners for both the army and navy service, and the need of such has become so apparent since the war with Spain that serious propositions have been made in government circles, to have at least one dental and oral surgeon appointed for every 1000 enlisted men in the military service. But if they are not fully educated and graduated M.D's., can they rank as regular members of the army and navy medical corps? Or will they be ranked simply as artisans? These same questions were raised recently on a proposition to appoint a dentist on the staff of one of the London hospitals. Another important embarrassment arises every time a dentist educated in an exclusively dental college desires to become a practitioner of medicine. In his application to a medical college, he always insists that he ought to be graduated M.D. by simply attending the senior year of the medical college, when not one out of twenty of such applicants has been educated in either anatomy, physiology, pathology or materia medica and therapeutics, and it is practically impossible for him to make up these fundamental deficiencies while attending the practical and clinical instruction of a senior year.

This, however, brings us back face to face with the most radical evil that pervades all departments of professional education in our country, namely, the dominant spirit of commercialism that is ever ready to sacrifice mental discipline, breadth of knowledge and soundness of judgment for whatever leads most directly to the chance of earning the dollar.

COURSE OF STUDY.*

BY W. A. EVANS, M.D.

CHICAGO.

In preparing this paper I have had before me the time cards of several of the very best dental schools that this country has produced. Some of these have rather nominal university connection; some have considerable university control; some have close medical school affiliations. Such figures as I use are obtained by averaging those derived from these schedules.

The question is not one of condemnation of the dental course as now existing. Lest there be some misunderstanding in this regard, I hasten to say that the average dental course is better than the average medical course. I will even state the matter more strongly: For the average dental student any good dental course is better than is the best medical course for the average medical student.

Unquestionably the past demand has been, and the present one is, for a dentist who can meet the ordinary questions that arise in the course of dentistry without any special reference to the more abstruse or remote problems, or to the more remote bearings of ordinary problems. This demand is changing, and the dentist of the future who succeeds will be a man somewhat differently educated.

If I may institute a comparison between the medical and dental courses, I should call attention to these facts: A small proportion of the medical graduates go through hospitals, thus learning the handling of patients, the every-day care for medical details and the bearing of responsibilty, whereas, every dental student has two years of practical ordinary work in which he learns the handling of patients, the every-day care of dental details, the doing of things and the bearing of responsibility.

This matter of responsiblity is no small item. When we must suffer the consequences or gain the rewards of a certain position, we learn that position more accurately, more judiciously and more permanently than we could ever have learned it otherwise. The medical dispensary in efficiency is not to be ranked with the dental infirmary.

When all this has been said, the fact remains that we do not make of the dentist as broad a man as is possible. In looking over these catalogues I find that 59 per cent. of the professors of the dental schools investigated have some professional title in addition to their D.D.S., or without the D.D.S. I do not refer to literary degrees. This is evidence of recognition of the truth of my statement on the part of these men whose brains have put them in positions of authority.

How are we to increase not only their breadth, but their desires for greater breadth? The second clause is more important than the first.

In averaging these time-cards I find that in the first year in prosthetic technics, prosthetic dentistry and other purely dental subjects, an average of sixteen hours a week is spent. In anatomy, physiology, chemistry, histology, bacteriology and materia medica twenty-one hours are spent. If we figure on Dr. Bayard Holmes' basis of two hours of preparation and one of recitation constituting an hour of study, then the twenty-one devoted to foundation work would increase perceptibly. Nevertheless, when we compare the number of hours of preparatory study required by the dental student with the preparation time required by the medical student, we find that the first year in dentistry does not require as much work as the first year in medicine. It would be advisable to make several changes. One would be to add a competent course in physics. It is usually given in connection with chemistry or made a nominal entrance requirement. The importance of this subject is so great in dentistry that it requires special consideration: it should not be left to the hazard of an entrance requirement. Dental physics also should be taught.

I find but little reference to embryology and comparative anatomy. Yet, when you finally solve the disease known as pyorrhea, you will have to thank the dog. There are any number of dental diseases apparently impregnable, whose flanks can be turned through knowledge of the lower animals.

I do not know whether I would decrease that average of technics in the first year or not; but the number of hours devoted to the broader subjects ought to be increased. I find one school scheduling infirmary in its first year. This is wise. It seems desirable to put the student in the infirmary in the beginning of his work. A proper plan would be to assign each first-year man to a third-year man, and have the former serve the latter in the capacity of an assistant. He would do no work, but would watch the senior, wait on him, dry cavities, etc. The advantage of this would be twofold. It would give the senior confidence and self-control. It would

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save his energies. It would increase his observation and his mental acuteness. The first-year man would gain in many ways. Most important of all would be the fact that it would give him an idea as to the dental bearings of anatomy, histology, chemistry, etc. The declaration of Mr. Flannagan, of Texas, to-wit: "What are we here for?" has been somewhat lost to sight. While we must ever broaden, we must always remember that the object is to make a dentist a broad, learned, growing, developing dentist, but always a dentist.

Coming to the second, or junior, year we find that the infirmary gets an average of eight hours a week on the assignment schedule. In a few schools the infirmary is conditional. The purely dental subjects get an average of sixteen hours. This includes prosthetic technics, orthodontia technics, prosthetic dentistry, operative dentistry, instrumentology, oral surgery and orthodontia. Other subjects, such as anatomy, physiology, pathology, bacteriology, chemistry, and materia medica and therapeutics get sixteen hours. My general criticism of the first year would apply with more force here. The disproportion is too great. There should be less of technical, laboratory and didactic instruction, and more of other work: less of the art, and more of the science of dentistry—dentistry broadly considered.

In the third year I find infirmary gets an average of twenty-five hours. In my observation the student actually puts in over twenty-five hours. To orthodontia, oral surgery, operative dentistry, prosthetic dentistry, porcelain and bridgework, and applied pathology, eight hours are given; to other subjects about three hours. The criticism that I would make here is that too little study is required of the senior student. He is kept busy during the day, but the system of clinics and lectures without quizzes does not employ all his time. This is bad, because in this way he fails to get the full advantage of what is going on around him and thus gets out of the habit of studying while he is still in the school.

Finally there are two general considerations to be noted. The dental course should be a four years' course. The criticism against lengthening the medical course does not apply here, for you keep your student far better in contact with his ultimate aim, and there is little danger of your making a scientist and ruining a practitioner. The dentists now practicing want it; the people do not oppose it. It rests with the possibility of unity in the dental faculties.

The second general point is this: Dentistry suffers whenever it is dissociated from medicine. They are not only natural allies; they are of the same body. Any effort at dissociating them tends to make of dentistry an art and possibly a trade rather than a science. Therefore, every possible effort should be made to hold them together. That which a young man gets in college comes in two general ways—what he gets from lecturer and demonstrator, and what he absorbs from his atmosphere. The latter transcends the former. Believing this, I must think the medical schools and the dental schools should be joined; that certain classes should be taught in the same section rooms; certain subjects should be covered in identically the same way; certain aims should be common, and association between the student should be free and untrammeled. This does not mean any loss of dignity to that which is properly a specialty, but it means an added dignity from an equal position in a great sisterhood.

103 State Street.

TECHNICAL VS. THEORETIC TRAINING.*

BY JOHN S. MARSHALL, M.D.

CHICAGO.

The subject which has been assigned to me seems to contain some very interesting and serious questions which lie at the very foundation of the present system of training in our American dental colleges.

This is a practical age and Americans are a practical people. Our public educational systems are all planned on the basis of practicality. To our people an education which does not fit the young man or the young woman for the practical, every-day affairs of life is looked on as being of little value. The great aim in life of the average American citizen is money-getting, and therefore the education which does not fit him to obtain the object of his ambition is in large measure valueless to him.

This desire for money-getting permeates the professions to such an extent that the young men who seek to enter their ranks are ambitious to reach the goal by the shortest possible road, and by the least expenditure of money that will fit them to begin the earning of a livelihood, rather than to prepare themselves in every possible way and in the most thorough manner for the duties and responsibilities of their high calling, regardless of the time and money spent in the preparation.

This desire to enter the professions with the minimum of preparation that will enable one to compass a living does not have a tendency to raise professional standards either in culture, scientific attainments, or ethics. In fact, the whole tendency is degrading and can work only ill to the honor of the profession, to the individuals who thus prepare themselves for the duties of professional life, and to the innocent public on whom they practice.

This commercial spirit in the professions has made it possible for any small coterie of men, imbued with the money-making and advertising spirit, to establish a college for the avowed purpose of educating young men and women for a professional career—especially in medicine and dentistry—but in reality for the covert purpose of gratifying their ambition for money-making and to see their names in the public prints, and this many times with no regard to an honest return to the student in the way of sound professional teaching for the money paid into the treasury of the institution.

Even the best of the professional colleges are not entirely free from this commercial spirit and they vie with each other in their ambition to increase their student body beyond that of their neighbor, employing means sometimes which are not entirely above reproach. On the other hand, many of the better class of dental colleges have been striving to deal honestly with their students, and to give them the best professional training that the time and the money invested would permit. To this end they have arranged their courses of instruction with the view of giving their students a good technical training in all that pertains to the purely mechanical and operative departments. But, in striving to attain the highest development of the student in these directions, the equally important work relating to the fundamental medical sciences, which are the basis of our knowledge of health and disease, and which govern the treatment of disease in all its forms, has not been

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studied with the same degree of energy, nor has it been given the prominence in the curriculum which its importance deserves. As a result of this, the dentist who is graduated from our colleges to-day is a first-class jeweler, capable of making the most beautiful pieces of crown, bridge or plate work, and inserting the most brilliantly finished gold fillings, after the latest and most approved methods of cavity preparation, anchorage, condensation and polishing. But what is all this worth to the patient if, through ignorance of the laws which govern the resistance of tissues to irritation, or of the principles of antiseptics, a pulpitis follow the insertion of such a filling, or because of improper treatment of a septic root canal, the crown or bridge is lost by reason of the development of alveolar abscesses which might have been avoided by a proper knowledge of the principles of antiseptics and of surgery?

What can be said of a system of teaching which fails to prepare the graduate of dental surgery to distinguish the differences between a case of aphtha—common canker-sore mouth—and a syphilitic mucous patch? How many really know the differential diagnosis between these diseases? Syphilis is so common in these days that the dentist needs to be well grounded in the clinical aspects of the disease in order to guard his patients and himself from inoculation.

Again, if the dentist has not a good knowledge of the anatomy, physiology and pathology of the nervous system how can he diagnose a case of reflex neuralgia of the fifth nerve from a case of hyperemia of the pulp in a tooth which gives no external evidence of injury or disease of the crown? It is not sufficient that he have a good knowledge of the anatomy of the teeth, and of the bones, muscles, blood-vessels, nerves and glands of the mouth and jaws. He must have a wider range of knowledge than this implies, or else he will never occupy that exalted plane of professional equality with the members of the medical profession which it is his right and duty to do.

Dentists sometimes complain that their medical brethren do not always treat them with that degree of respect which is due to them as professional equals; that they are not consulted as to the best method of treatment to be pursued in a given case of dental or oral disease; and that the physician presumes to dictate as to what shall or shall not be done rather than to advise with the dentist as he would with the oculist, the laryngologist or any other specialist, in a case that came under their especial departments.

When much lack of courtesy occurs on the part of the physician, it may usually be set down either to prejudice and narrow-mindedness or to some unfortunate experience, for it can not be said that dentists have never given their medical brethren cause to doubt their ability to render an intelligent diagnosis in certain oral diseases, or to treat such cases after the most scientific methods.

Thirty years ago a large majority of the rank and file of the dental profession were without college training, and consequently held no professional degree, while many of them were positively ignorant of all that pertained to the art of dental surgery save the extraction of teeth, the making of a rubber plate and plugging a tooth with amalgam or gold. Under such circumstances it was no wonder that medical men of education did not feel justified in calling such dentists in consultation over serious cases. The educated dentist, however, has never had cause to complain of his treatment by the cultured medical man, for no class of men are more anxious to divide the responsibility of a case calling for special knowledge than is the educated, cultured physician. No man more fully realizes than he that the field of medicine has become so large that it is impossible for even the most brilliant mind to acquire all the knowledge comprised in the various branches of medicine and surgery, or even to completely assimilate all that belongs to a single department, and therefore he is glad of the opportunity for the good of his patient and the relief of his own mind, to call in consultation a man more eminent than himself in that particular department, by reason of his superior knowledge and skill.

Technique or technical training, as it is generally understood to-day, was not a realized fact ten years ago. At that time the system was still in the embryo stage. The idea was in the minds of a few progressive men who realized the great need of more careful training in the manipulative departments of dental surgery. Little by little a system has been evolved which covers the entire field of mechanical and operative dentistry, so that to-day in our best institutions it would be difficult to plan a more thorough course of instruction in these departments.

The difficulty, however, lies in the fact that so much time is being spent in the manipulative training of the student that his scientific education is being neglected, and instead of making scientific practitioners out of our students, we are training them largely as mechanics and artisans. Do not misunderstand me on this latter point, for I would not have his technical training made any less thorough or complete than it is to-day, for manipulative skill of the very highest order is required in the first-class dental surgeon. But he needs much more than this if he is to intelligently meet the grave responsibilities of his calling. The health of his patient, and often life and death, wait on his decision in the treatment of many forms of dental and oral diseases. Is it not therefore of vital importance that he should be well grounded in all of those scientific departments of study which are the foundation of a broad medical education—anatomy, physiology, histology, pathology, chemistry, materia medica, therapeutics and surgery? How can he recognize morbid conditions if he knows little or nothing of the normal appearance of tissues or of the physiologic functions of the various organs, parts and systems of the body, and their interdependence on each other? How can he hope to successfully treat even the ordinary forms of disease which belong to his specialty if he is deficient in the knowledge of general and surgical pathology, or of the administration of remedies and their therapeutic effects?

What the profession needs to-day is not less technique, but a more thorough training in those sciences which make the intelligent physician and surgeon.

The question which very naturally arises in the consideration of this subject—provided that you agree with me that this training in the general medical sciences is necessary—is how may this scientific education be obtained?

I would suggest: 1. So elevate the entrance requirements that only the most intelligent and studious can hope to gain admission to the dental colleges. 2. Lengthen the college course to four years of nine months each. This would give ample time for the most thorough training. 3. Place the dental students in the same

classes with the medical students for the first two years of the course of study, and require them to take the same work and pass the same examinations; and during the last two years devote all the time to those subjects which pertain to dental surgery. 4. Graduate no student who has not fulfilled all of the requirements of the course.

But then, the commercial spirit again comes to the front, and contends that such a movement would ruin our schools. If such schools were organized for the purpose of *just making money,* then the sooner they disappear the better. There are already too many schools in existence and only the better ones should live.

If dental surgery is a department of medicine, then let it place itself on the same plane with the other learned professions. But it can do so only by adopting the same high standards of culture, professional attainments and ethics.

34 Washington Street.

ENCOURAGEMENT OF HIGHER EDUCATION AND ORIGINAL RESEARCH.*

BY WM. ERNEST WALKER, D.D.S., M.D.

PASS CHRISTIAN, MISS.

I have the honor of submitting for your consideration the following outline of a plan which has for its object the encouragement of higher education and original research. To this end I propose that the Section on Stomatology of the AMERICAN MEDICAL ASSOCIATION take steps to acquire the power or authority, whether by charter or otherwise, by virtue of which it may be empowered to confer on deserving individuals, regardless of sex, the degree of S.D., *Stomatologiæ Doctor*—Doctor of Stomatology—and in order that this degree may stimulate to higher education and original research I would recommend that this degree be conferred strictly and only on compliance with the following requirements: 1, that the recipient shall be of good moral character and in good professional standing; 2, that he shall have previously acquired the degree of M.D. from an institution not conferring the degree of M.D., subsequent to 1903, on less than the requirement of an attendance on four sessions, of not less than seven months each, in four different years; 3, that he shall also have taken a course on the mouth and its associate parts; 4, that he shall have made some original, meritorious and valuable contribution to stomatology; 5, that this degree shall not be conferred except on the unanimous vote in the affirmative, of all the members present at the meeting at which this action is contemplated.

Dentistry stands to-day as the only specialty in medicine which does not universally require the degree of M.D., as a prerequisite to entrance on the practice of a specialty; but it is a source of gratification to see that in the United States the number of dental practitioners with the degree of M.D. is increasing annually.

In the State of Virginia, of the graduate dental practitioners enrolled in Polk's Dental Register (1898), 14 per cent. have the degree of M.D., and I have no doubt that the forthcoming edition will show a greatly increased percentage, as I personally know of a number who have acquired it since 1898.

I believe that offering the stomatologic degree, as outlined above, as a goal to be reached only through the previous acquirement of the medical degree in addition to the course on the mouth, will serve to stimulate a greatly increasing number to acquire that degree and thus receive the benefit of its broadening and elevating influence.

I need not argue, before this body, the propriety of the provision that the recipients of the degree S.D. be required not only to hold the degree M.D., but also to have taken a course on the mouth and its associate parts. You will note that the requirement that the M.D. shall have been conferred by a college not conferring the degree *subsequent to 1903* on less than the requirement of an attendance on four sessions, does no injustice to those having received the M.D. previous to the inauguration of the four-year course, provided that their alma mater discontnued, before 1903, the shorter course previously *en règle;* thus having the assurance that the standard was high, considering the time at which the degree was conferred.

The fourth requirement entitling the recipient to the degree S.D. is that not only shall he have made some addition to "the sum of the scientific knowledge concerning the mouth," but such additions shall not only be *original* but they must be also *meritorious;* and not only "original and meritorious" but also valuable.

Original work may be meritorious because of the labor and self-sacrifice which the work represents, but it may nevertheless, in its final result, be practically valueless to stomatology: wherefore, the three qualifying terms —original, meritorious, valuable.

The fifth requirement, that the degree S.D. be granted only with the unanimous consent of the members present at the meeting at which this action is contemplated, together with the other four requirements, sufficiently guards against the degree ever being conferred except on fully deserving individuals.

I also beg to submit the following as a suitable form, certifying to the granting of the degree of S.D. by this Section:

AMERICAN MEDICAL ASSOCIATION.

Section on Stomatology.

To all those to whom these presents shall come, greeting: Know ye that by virtue of the authority vested in the Section on Stomatology of the AMERICAN MEDICAL ASSOCIATION, we, the members voting unanimously in the affirmative, do this day confer on X Y Z, M.D., the degree of S.D.—*Stomatologiæ Doctor*— in recognition of his original, meritorious and valuable contributions to the sum of the scientific knowledge concerning the mouth; he having complied with the following requirements, *to-wit*, that no person shall receive this degree except that: 1, he shall previously have acquired the degree of M.D.; 2, he shall have taken, in addition, a course on the mouth and its associate parts; 3, he shall have made some original, meritorious and valuable contribution to stomatology; 4, it shall have been unanimously voted by the members present that the degree be conferred on him.

Wherefore, we, the members of the Section, have caused to be affixed hereunto the signatures of the acting chairman of the Section and of the three last retired chairmen, and of the present Secretary; the same to be stamped with the seal of the Section on Stomatology of the AMERICAN MEDICAL ASSOCIATION.

Thus briefly outlined, I submit this project and hope it may receive favorable and earnest consideration.

[The other papers presented in the Symposium on Dental Education will appear in subsequent issues of THE JOURNAL. —ED.]

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THE MUTUAL Life Insurance Company of the Physicians of Paris is a new organization, recently founded by certain members of the profession at Paris. Membership is limited to physicians under 50 years of age. The annual fee is $6. The company will start with $200 as the maximum paid the family of a deceased member, but as the society grows this sum will be increased.

MEDICINE AND DISEASE IN PHILIPPINES.

BY DAVID J. DOHERTY, M.D.

CHICAGO.

This subject should be treated by some one who has personal information, but our army and navy medical officers have doubtless been too much occupied by their duties to indulge in study or composition. The medical department at Washington has as yet issued no reports, while standard works on geographic pathology give but little attention to the Philippines, and original ones by Filipino or Spanish authors are not accessible to many American readers. Yet the Philippine Islands, with their teeming millions of inhabitants, are on our hands and we must face our duty toward them. All this is my apology for presenting this paper, which contains in condensed and systematized shape all the data that I have gathered from a number of authorities, whose titles are given in the bibliographic index at the end of the article.

Modern medicine bases its classification of diseases on etiology; and with the aid of bacteriology is rapidly studying and cataloguing the etiologic factors of disease. Still we have not yet advanced far enough to dispense with the old views as to the influence, causal or conditional, of physical environment, such as climate, temperature, food, etc. These factors must still remain, if not as causes, at least as conditions. They may be the *tertium quid,* the copula between the microbe and its victim, increasing or inhibiting its potency or virulence, and hence it is necessary to mention briefly the climatic conditions of the islands.

The Philippine archipelago possesses "a singular variety of climate." (Encyclopedia Britannica.) This is due to its extent, from the fourth to the nineteenth degree of north latitude; to the division of its surface into innumerable islands; to its many channels and currents, which carry the winds of the Pacific; to its chains of mountains, their altitude and direction; to the fact that the warm equatorial current tilts full against it and sweeps northward along by it; and, chiefly, to its location in a direct line between the varying atmospheric pressures of the table-lands of Asia and Australia. This condition explains the contradictory statements of travelers as to its climate, the paradox that the portion nearer the equator is more healthful than the northern islands, and the fact that it is an exception to the rule of double alternating wet and dry seasons which characterize equatorial lands. Its location exposes it to the sweep of the monsoon, which blows during the northern winter from the high-pressure atmosphere of Asia to the low-pressure atmosphere of Australia, and in a reverse direction during the northern summer. The result is a general division of the year into two portions: that in which the northeast monsoon blows, or from about October till February; and that in which the southwest monsoon prevails, from June till October, with an interval of calm. The first period is cool and dry, the interval very hot, and the second period wet. As may be inferred, no absolute statement as to the date of occurrence and the duration of these periods can be made, for they vary in different islands.

The temperature is high and constant, its mean ranging, according to latitude from 72 to 81 F. in the cold season; 88 to 82 F. in the hot season; and 87 to 83 F. in the wet. It must not, however, be inferred that one can not feel cold there, for especially at night, even at the sea-level, I have noted that travelers sometimes speak of "an overcoat being agreeable," of "blankets being desirable," of "being numb with the cold," etc. The humidity is rather uniform. The rainfall at Manila in inches averages 8.6 in the cold season, 10.4 in the hot, and 36 in the wet. At Sulu, the range is 15, 33, and 25 inches, respectively, in the same seasons. The barometric excursion is between 755 and 762 mm. Atmospheric electricity is considerable, almost every night showing flashes, and during the wet season thunderstorms are of almost daily occurrence. At the change of the monsoons, which takes place near the equinoxes, and especially at the autumnal, violent winds occur, sometimes causing typhoons or cyclones.

A knowledge of these meteorologic data is necessary in order to study the nature and etiology of the diseases, which exist in the archipelago, and to determine rules of public hygiene and private health. The high temperature and the humidity induce an excessive action of the skin. This constant diaphoresis is the cause or occasion of some of the many skin diseases that prevail there. Continued hyperactivity of a tissue leads eventually to atrophy or paralysis, and the way is opened to other skin diseases. Constant thirst is another sequela, and this leads, more by its too generous gratification than by its neglect, to anorexia and various forms of dyspepsia. Diminished urinary secretion is another which leads on its own cortege of ailments. Muscular lassitude and weakness, inactivity and curtailed respiratory action are also effects and in turn become causes. Any lesion in the delicate physiologic mechanism impairs the function of other parts, and the door is opened to all the endemic, epidemic and sporadic diseases, which make up the nosology of the Philippines.

It must not be inferred that the climate of the Philippines is deadly. On the contrary, it is the most healthful of any in the tropics. But the physical conditions which determine the growth and spread of germs and which affect the susceptibility of the human race prevail more in the tropics than elsewhere. Hence, it follows that neither the individual nor the race inhabiting the tropics can be as healthy or as vigorous as those in the temperate or sub-arctic zones. It also follows that, notwithstanding the help which Nature gives him by its monsoons and typhoons, man himself must obey every rule of hygiene and every precaution of experience in order to hold his own in the struggle for existence.

My review of the diseases which occur in the Philippines is drawn principally from Barcones' 'Estudia para una Nosologia Filipina." Dr. Barcones was a surgeon of the Spanish navy, who spent two years in the hospitals at Cavite, Zamboanga, Joló and Manila. In scientific insight, common sense and clearness, his work is fully equal to any similar book in French, German or English. I have also read Cavada's "Historia Estadistica," a huge accumulation of more or less reliable data arranged by provinces and gathered from reports of Spanish officials. These data, when tabulated, enable us to judge the relative frequency of diseases, though the popular and symptomatic character of the diagnosis robs them of scientific value.

The first place in frequency is occupied by fevers: the malarial form predominating, the others being typhoid, malignant, putrid and catarrhal. Next in order come dysentery, phthisis and other pulmonary affections, skin diseases, colics, convulsions, leprosy, smallpox and buboes. The table also contains the names of cholera, rheumatism, inflammation of the eyes, dropsy, measles,

erysipelas, paralysis and worms. Finally are mentioned two diseases by their native names, *soroc-soroc* and *colo-colo*. The former I have not been able to identify; but the latter is a condition of atrophy of the male genital organs due to early marriage and excessive sexualism common in hot countries.

Barcones divides his work into three parts, treating respectively of endemic, epidemic and sporadic diseases.

ENDEMIC DISEASES.

Those due to telluric infection.—1. The most important in this class is the chronic diarrhea of hot climates. It is not dysentery nor bilious, mucous or choleriform diarrhea. It is a specific disease probably due to a specific germ and characterized by frequent stools without tenesmus, not bloody, but thin, profuse and grayish or whitish-yellow in color. The points of differential diagnosis are: absence of fever, no tenesmus, profuseness of stools, and obstinacy to treatment. The patients are or become anemic, the tongue becomes aphthous and ulcerated, hemorrhagic maculæ form in the mucosa, grit-like shreds of epithelium are found in the stools, which become more frequent and profuse, pustules form in the skin, which is sensitive to cold, the extremities become paralyzed, the liver atrophies, the intellect is numb and complete marasmus closes the scene. 2. Acute suppurative hepatitis is also frequent and seems to be due to a specific infection.

Those due to paludal infection.—1. Malaria, the dominant forms being double quotidian and double tertian. All races are subject to this, and new arrivals are particularly amenable. It prevails throughout the entire archipelago, but is worse on Balabac, Basilan and the subarchipelago of Sulu. 2. Continuous fevers, which may be benign, grave or pernicious. The first has no cold stage, but a burning skin and intense headache, perhaps also bilious vomiting and jaundice. It runs three to ten days and generally leaves gastric trouble as a sequela. The grave form is two-fold: one, resembling severe typhoid, but with intermissions of fever, lasting six to seven days and terminating by a crisis; the other, with a similar range of fever, but with bilious vomiting, icterus, mucous ecchymosis and cerebral derangement. The pernicious fever may be comatose, apoplectic, deliriant, epileptiform, syncopal, algid or choleriform. It occurs chiefly in Basilan, Balabac and Joló. All these types of pernicious fever have similar characteristics in onset, season, fever, condition of abdominal viscera and malarial protozoa in the blood. A low temperature, especially in the young, is serious. 3. Larvate paludism —neuralgia, urticaria, etc.—occurs in anemic women and yields to quinin. 4. Paludal cachexia, general among the natives and characterized by anemia, pale or muddy skin and mucosa, small and slow pulse, cardiac weakness and soufflé, and diminution of red blood-corpuscles, besides enlarged liver and spleen. The points for differential diagnosis of malarial infection are splenic enlargement, protozoa in the blood, and action of quinin. Barcones says that, in the Philippines, all pernicious fevers should be suspected to be malarial and the patient should be saturated with quinin as quickly as possible. 5. Manila fever. A special type of pernicious fever occurs in Manila during the hot months of April and May, and sometimes becomes epidemic. Dr. Barcones found it nowhere else, and he was not able to learn from other doctors of its occurrence elsewhere. He thinks it is malarial in character, but other physicians class it as distinctly specific. Malaria is a disease of hot and moist months, while this occurs in the hot and dry season. The onset is insidious, without initial chill and with but slight symptoms, perhaps a little vertigo or anorexia. There is hardly any lassitude, the pulse range is normal—60 to 90—respiration easy, no thirst, no increase of spleen or liver, tongue moist and clean, urine limpid; in fact, the victim feels almost as well as usual. *But the thermometer shows a rising temperature,* and when it reaches the point of danger, say 42 C., a rush of symptoms overwhelms the patient. The prognosis is so grave that a physician, if he can be called in time, must not delay about theories. He faces a condition and a dying man, not a theory. If the patient is robust, then blood-letting is indicated; if not, baths, quinin, alcohol, bromids, caffein, anything and everything, in the practically hopeless battle. It would seem advisable to try infusion of normal salt solution with or without the blood-letting.

Microbe infection.—1. Typhoid is very frequent, especially among the dense population of Manila. The prognosis is always grave, on account of the debilitating conditions of life. 2. Dysentery is always endemic and sometimes epidemic, contagion being through the stools. It is due to a microbe which produces ulcers in the large bowel. The stools may be as numerous as one hundred in twenty-four hours; they are often bloody and mucous, and always attended by tenesmus and severe griping. There is intense thirst, goose-flesh, variable pulse and excruciating pain, followed by adynamia, somnolence, coldness and death about the twentieth day. This must not be confounded with the chronic diarrhea of hot climates that afflicts foreigners who are addicted to alcohol and high living. It follows slight, acute attacks often repeated, and is characterized by serous stools, absence of tenesmus, a feeling of weight in the rectum, absence of fever and of anorexia, and is followed by gradual weakness and wasting. 3. Beri-beri is ascribed by MacLean to scurvy, but Barcones considers it of microbic origin. The name is derived from a Singhalese word meaning weakness, and the Tagalos call it *Mausas.* It is found in both hemispheres between latitudes 45 degrees N. and 35 S., and during both the wet and dry seasons, but more frequently in the former. It occurs chiefly among rice-eating people, and by some authors is ascribed to damaged rice. The mortality varies in different years and localities from 10 to 70 per cent. It runs a rapid course and is characterized by serous anasarca without albuminuria, but with torpidity and weakness of the lower limbs. The blood is altered as in anemia or scurvy. Three forms are found, the marasmic, dropsical, and polysarcic. The first is marked by a rapid invasion of symptoms, viz., difficulty of locomotion, diffused anesthesia, atrophy of skin and muscles, periodic attacks of palpitation and depressed circulation. The anesthesia and atrophy gradually extend to the trunk, and general paralysis slowly causes death. The dropsical form is the usual one in the Philippines. Its course is more rapid because of effusion into the pericardium and pleura. The polysarcic form is marked, in addition, by an extreme obesity and a terrible aspect of the countenance. All the forms have fever. Sometimes the disease proves abortive, but convalescence is slow and relapses are frequent. The patient remains anorexic and has a peculiar strutting walk like a rooster. Often it is acute and fulminant, the rush of symptoms being overwhelming and death ensuing in from twenty-four to forty-eight hours. The points for diagnosis are: the irregularities of heart and circulation, the absence of

albuminuria, local anesthesia, the mode of walking and alternating edemas of the extremities. 4. Erysipelas is frequent among the natives, and in spite of their dark skin is easily recognized.

Bradytrophic arthritism.—1. Acute articular rheumatism is frequent, especially on the coasts. Like typhoid and pneumonia, it diminishes after the typhoons. The chronic form is also common, especially in females. 2. Gout, both acute and chronic, is found among foreigners and well-to-do natives who indulge excessively in eating and drinking, and lead idle, sedentary lives. 3. Obesity is prevalent among natives and Europeans, both sexes and children, and is due to the food being largely farinaceous and sweet, and to the inactive life imposed by the climate. 4. Phagedenic ulcers are numerous and are called *llagas de Cristo*—wounds of Christ—by the natives. The tissues around the sore are atonic and anesthetic, and undergo progressive molecular destruction. They resist healing measures and not infrequently require amputation. A specific microbe is probable, but has not yet been discovered. Concurring causes are the abundance of insects which cause lesions, the excessive perspiration which causes maceration, and the racial anemia and weakness of constitution.

Dyscrasias.—1. Anemia is the most wide-spread pathologic condition in the country. It not only accompanies all diseases, and attends convalescence, but it is often primary. Primary anemia is not a malarial cachexia, because not attended by enlarged spleen or protozoa. It seems to be, like the febrile attacks and the diarrheas, a part of the process of acclimatization, and hence its special victims are foreigners. Barcones thinks that the climate—heat and moisture—by diminishing the respiratory field, impairs hematosis, debilitates the digestive functions and disturbs nutrition. 2. Leukemia is frequent among those who suffer from the prevalent forms of dermatosis and furunculosis. It is also a transitory symptom in all the microbic diseases, including tuberculosis and the native dysentery. The white blood-corpuscles increase in number, and the adenoid tissue proliferates even in organs normally possessing little or none, so that lymph adenomata are formed in the liver, kidneys and serous surfaces. 3. Diabetes is rather rare, but does occur. 4. Rachitis is very common among the natives and the offspring of foreigners. Barcones says: "All the native races are excessively rachitic. It seems as if nature, which is otherwise so exuberant in its manifestations, had attempted in this land to belittle the human race by making men little, weak and rachitic both physically and morally."

EPIDEMIC DISEASES.

1. As to cholera, the pandemics of 1819 and 1865 involved the Philippine archipelago with the rest of the world, but it escaped the epidemics of 1830, 1848, and 1854. In 1882, cholera destroyed 25 per cent. of the population of Zamboanga in one month, and decimated that of Manila. It seems that it has not been extirpated since, for cases occur every hot season, and in 1884 and 1889 there were frequent outbreaks. 2. Smallpox exists the same as elsewhere, and the hemorrhagic or black pox is the most frequent. Vaccination is largely practiced by the natives, but immunity is lost by the failure of the adults to be re-vaccinated. 3. Varicella is common, sometimes assuming a pemphigoid form. It is trifling in children, but may be serious in adults. Travelers, who speak of seeing children with smallpox, in their mothers' arms, on the street-cars in Manila very likely saw cases of varicella. 4. Scarlatina, measles and rose[ola] occur. 5. Diphtheria is abundant in all the island[s] often malignant, and sometimes epidemic in the den[se] city populations. 6. La grippe invaded the Philippin[es] in 1889-90, in its tour around the world, and reappeare[d] in several following years. Barcones saw many cases [in] the hospital of Joló in January and February, 189[0]. Convalescence was shorter and more complete here th[an] in Europe. 7. Dengue, being native in Indo-Chin[a] easily passes over to the archipelago. It occurs usual[ly] at the change of the monsoons. 8. As to scurvy, Ba[r]cones had not a few cases among sailors who had be[en] on long voyages. An outbreak occurred in the Spani[sh] army on Mindanao in 1890. It is frequently fou[nd] among the native boating population and in the prison[s].

SPORADIC DISEASES.

Skin diseases.—1. Lichen tropicus, rosy papules b[e]coming vesicles and attended by severe pruritis, bese[t] the newly arrived, and is probably due to hyperidrosi[s]. 2. Acarus itch occurs not only among the poor an[d] unclean, but also among the better classes. Among th[e] Moros, it is so severe that the skin becomes even co[n]rugated. 3. Phthiriasis or morbus pedicularis is ve[ry] prevalent. 4. Sycosis is found often among foreigner[s] but the natives, having little or no beard, do not suffe[r] from it. 5. Pellagra has been common among th[e] agricultural population since the introduction of maiz[e]. 6. Herpes occurs frequently and in great variety. Leprosy exists, especially in Mindanao, Paragua an[d] Joló. Barcones studied it in the Leper Hospital [in] Manila, where he met the true tuberculous form. Elephantiasis was found in the Leper Hospital.

Diseases of the intestinal tract.—1. Stomatiti[s] muguet, etc., are plentiful among the natives and a[re] due to lack of attention to the mouth, to the abuse [of] tobacco, and to the constant chewing of bullo—a mi[x]ture of betel leaves, bonga fruit and lime. Bordier, [in] his "Geographie Medicale," claims that bullo is an a[s]tringent and intestinal disinfectant and a preventive [of] tropical diarrheas. 2. All forms of gastritis and inte[s]tinal inflammations occur with extreme frequency an[d] are difficult to treat because the milk-supply is inad[e]quate and poor in quality. 3. Dysentery is always pre[s]ent, either sporadic, endemic or epidemic. 4. Acu[te] congestions of the liver are very common and are th[e] chief cause of mortality among foreigners. 5. Chol[e]lithiasis is frequent, especially among women and th[e] sedentary classes. 6. All forms of intestinal parasit[es] are found, due largely to the use of water from sluggis[h] streams. This class of ailments is produced by sedentar[y] life, abuse of the bath, overeating and indulgence i[n] alcohol.

Diseases of the respiratory system.—1. Acute coryz[a] occurs among foreigners, and is attributed by Barcon[es] to the practice of removing the hat in the shade aft[er] exposure to the sun's rays, in order to wipe off th[e] copious perspiration. 2. Ozena was found only amon[g] the Chinese and was ascribed to the fact that their wi[de] and presenting nares are easily accessible to infectin[g] germs. 3. Epistaxis occurs often among the soldie[rs] after exposure to the sun. It is also an accompanime[nt] of liver diseases, eruptive fevers, malaria and anemi[a]. 4. Catarrhal anginas are common, especially among th[e] women, who are wont to wear but scant covering on th[e] neck and upper thorax. 5. Laryngitis in all forms [is] produced by the excessive use of tobacco. The tube[r]culous form is as prevalent as in Europe, and is large[r]

found among the young women who work in the tobacco factories. 6. Acute bronchitis is frequent during the rainy months and at the change of the monsoons, but its duration is shorter than in the temperate zones. The chronic form afflicts almost all adults, both native and acclimatized. It is due to tobacco and alcohol, and to the rheumatic and arthritic diatheses. 7. Asthma is common. 8. In spite of the comparatively even temperature, pneumonia occurs as freely as elsewhere, not only in the cold season, but also in the hot months. 9. Phthisis pulmonum is as prevalent in the Philippines as in any country of the globe. Acute miliary tuberculosis occurs with unusual frequency among the young, and especially among the newly-arrived soldiers. 10. Acute pleurisy was found very often.

Diseases of the circulatory system.—Barcones met all forms: endocarditis, myocarditis, functional hypertrophy, etc., the last-named being caused by the abuse of liquor, tobacco, tea and coffee. He saw no aneurysm. Exophthalmic goiter is found chiefly in the negro tribes, and especially among the dysmenorrheic and hysterical women.

Diseases of urinary and genital apparatus.—Acute and chronic nephritis occur as elsewhere. Renal lithiasis is not rare in Manila, and Barcones attributes it to the character of the drinking water. Cystitis is frequent and is due to the abuse of the bath. Gonorrhea and syphilis are wide-spread, the latter being generally violent in character and attended by a rapid march of the stages. Affections of the testicle and scrotum are the same as elsewhere, except that the natives generally suffer from atrophy of the testicle and even of the penis, due to early use and subsequent abuse of the sexual relation. This condition they call *colo-colo*. The women are usually anemic and chlorotic. The genital functions develop early, and the duties of marriage are assumed before puberty is well established, and before the organs are ready for the task of maternity. The menses are more profuse and closer together than in colder climates. Women suffer all the ailments that their sisters elsewhere endure.

Diseases of the nervous system.—Among these, Barcones saw cerebral congestions, gummata, meningeal inflammations, myelitis, locomotor ataxia, progressive muscular atrophy, and infantile paralysis, but no case of paralysis agitans. Epilepsy is frequent among all the races. Hysteria occurs among the natives, both men and women, and sometimes spreads by imitation. They call it *nagalit,* which means "hot-head" or getting crazy. Chorea also sometimes spreads by imitation. He saw no case of tetanus, though he treated many wounds, especially of the feet, these being frequent, on account of the habit of going barefooted. All forms of neuralgia and facial and other kinds of paralysis are met as often here as in other regions. Gangrene of the extremities is peculiar to this country, especially among the Chinese and Moros, and in women who have repeated attacks of malaria. It is a local, symmetrical asphyxia.

INTOXICATIONS.

Barcones is very severe in his condemnation of "the inhuman spirit of speculation," which introduced alcohol and opium to the natives. "The evil has borne its fruit and the inhabitants of these remote lands have adopted our vices, adding them to those possessed from time immemorial, and producing the physical and moral impoverishment of a race already of itself weak and miserable." He declares it is no exaggeration to say that the use of alcohol in hot countries is the constant promoter of almost all the diseases known in them. The clinician and the hygienist, as well as the moralist, must recognize it as the fount and origin of diseases, both acute and chronic, of tissue degeneration and cirrhosis, of insanity and of crime. The practice of drinking a "bracer" during the morning fast was copied by the natives from the Spaniards, and is now almost universal. The latter take their *aguardiente,* and the former their *tuba*—wine of coca. The custom is even more injurious than the use of alcohol at meals.

The opium intoxication was introduced by the Chinese, and is largely practiced by them. Their dens were licensed by the Spanish government.

Tobacco intoxication or nicotinism, which is a frightful abuse found among the Filipino men and women, is the cause of laryngeal, bronchial and gastric troubles.

This summary of Philippine diseases is the authoritative report of a practical, scientific man, and it enables us to correct the errors of other writers. For example, the "Dictionnaire Encyclopediaque"—which has an excellent article on the Philippines—says that primary hepatitis is rare, that typhoid fever is exceptional, that dengue does not occur, and that tetanus is quite common. Davidson says that pneumonia, pleurisy, influenza and pertussis are rare, and that he nowhere finds mention of scarlet fever. On the other hand, I find, in Barcones, no mention of sunstroke. Stevens, a layman, who spent two years in Manila, says that it is uncommon. Nor does Barcones mention the bubonic plague, which has appeared since his book was written, and which quite recently—according to press reports—has gained a foothold in Luzon. Cavada speaks of the prevalence of buboes and of their being hereditary in families, but he no doubt refers to the enlarged glands of scrofulosis, and not to a rapid, infectious and fatal disease.

Since the bubonic plague must now be included in the nosology of the Philippines, the following statement, excerpted from Manson, is in place. Its bacillus has been identified by Kitasato, and rats and other vermin are recognized as its usual carriers. The incubation period is usually from two to eight, rarely to fifteen days, but in malignant forms it may be only a few hours. The prodromata are depression, anorexia, aching, chilliness, giddiness and sometimes a dull pain in the groins. The onset is rather sudden, with fever, great lassitude, headache, aching and drowsiness. The face is drawn and haggard and the eyes bloodshot. Sometimes after one or two days of invasion, and sometimes suddenly, the temperature rises rapidly, followed by its cortege of symptoms—thirst, weakness, delirium, subsultus, coma, and convulsions. The spleen and liver are enlarged. The urine is scant, and rarely shows more than a trace of albumin. The pulse becomes weak, dicrotic and intermittent. In most cases, usually in twenty-four hours, the characteristic bubo forms in one or both groins, sometimes in the axilla or cervical angle and is occasionally multiple. The buboes go on to suppuration and heal indolently. Convalescence is generally slow. Death usually takes place between the third and fifth day, and the mortality varies with the degree of virulence of the epidemic, from 20 to 95 per cent.

It may be useful to add a word about the time of the year at which the various disorders occur. Foreman says that many deaths take place in the spring from acute indigestion, caused by eating the new rice too plentifully. Stevens says that the cold season is the most healthful,

and that the hot, dry months in the lull between the monsoons are the most unhealthful. Cavada states that smallpox occurs in the early months of the year, cholera and gastric disturbances during the southwest, and malaria and catarrhal fevers during the northeast, monsoon. Generally speaking, morbidity is greatest at the changes of the seasons, and mortality highest in the cold season and at the onset of the rains. Barcones notes that rheumatism, malaria, pneumonia and typhoid diminish after the occurrence of hurricanes, because these storms either destroy or sweep away the germs. Acute gastric fevers and dengue develop at the change of the monsoons. Pneumonia and beri-beri occur in both the wet and dry seasons, but are more frequent in the former. Pernicious fevers and cholera occur in the hot months.

Finally, the important question of treatment remains to be considered. Among the natives, especially in the interior, there are numerous *curanderos.* These men do not constitute a class or caste like the medicine-men of savage tribes, but they are somewhat akin to the barber-surgeons of villages in Continental Europe in which doctors are not located. They use the native plants in all manners; infusions, decoctions, embrocations, powders, etc. In general, we may say of their treatment what can not be said of some of our pharmacopeial drugs, that if it does no good it probably does no harm. As an example, for neuralgias they use *tangan-tangan,* a ricinus plant. Not long since I read a commendation of the castor-oil treatment for obstinate neuralgias, and I have several times since used it with excellent results. The curanderos who suck the bites inflicted by venomous reptiles are called *chanas,* and their antidotes *panaod.* Barcones says that their results are often marvelous. The natives also have a custom of applying ligatures around the limbs in beri-beri, in order to prevent the edema from ascending to the trunk. Another singular custom of their women is that of kneading and massaging the abdomen of pregnant women during the two weeks preceding the expected delivery. They say it makes parturition easier and places the child in a better presentation.

Treatment, as practiced by educated Filipino and Spanish physicians is precisely the same as with us. But Barcones emphasizes the necessity of always adding tonic treatment in order to counteract the debilitating influences of the climate. They also realize that the best treatment is prophylactic, and that prophylaxis must be public as well as private. As a matter of historic justice it should be recognized that, whatever the political failings of Spain may have been, she should not be charged with neglect of the sanitary and hygienic needs of the Filipino people. This was natural, since medicine exercises a witchery over the minds of its devotees and compels study, investigation and work. The Spaniards could not have been alone obtuse to her charms. We Americans are not familiar with Spanish writings. We know those of the English, the Germans, the French and to some extent the Italians, but it may readily be admitted that Spanish medicine occupies the same high level as that of the other nations.

The archipelago was controlled, as to sanitary matters, by a department of charity and health, which included bureaus of maritime hygiene, baths, medicine and pharmacy, vaccination and hospitals. Manila was divided into fifteen districts, each in charge of a physician and under control of a superior sanitary committee and a central bureau of vaccination.

According to Trübner's "Jahrbuch der Universitäten der Welt" (1898-99), the University of Manila had 404 medical and 51 pharmacal students out of a total of 1144, and for many years, if not for generations, it must have sent forth a supply of physicians. Its teaching staff was complete, and in the list of its professors, I note the name of Dr. Manuel Rogel, professor of hygiene, who is known by his work on "Lepra en Visaya." There must have been some medical journals published in the islands, for I find reference to the *Boletin de Cebu* and the *Cronica de Ciencios Med. de Filipinas.*

Barcones gives a list of ten hospitals and ten infirmaries scattered through the islands, some of which were civil and some military and naval. The most notable are those of St. John of God, in Manila, in charge of the Sisters of Charity; St. Joseph's Asylum for the Insane, located on an island in the Pasig River, and the Leper Hospital of St. Lazarus, in charge of the Franciscan Friars. The origin of the last-named hospital is noteworthy (I quote the story from Foreman): In 1633, the ruler of Japan, being hostile to Spain and resisting the missionaries' attempts to Christianize his people, sent to Manila a shipload of lepers—about 150 in number—with a message that he did not permit Christians in his country, but knowing that the priests professed charity for the afflicted, he committed these unfortunates to their care. Instead of adopting a modern "shot-gun" quarantine, the monks accepted the gift and built for the lepers a shelter which has grown to be the richly endowed leper hospital of Manila.

Vaccination was early introduced into her colonies by Spain. In 1803, five years after the procedure was made known, though the country was involved in the turmoil of the Napoleonic wars, she sent an expedition to vaccinate her subjects in all her colonies—a task that occupied three years. There stands in Manila a statue to Charles IV, which bears the inscription "In Gratitude for the Introduction of Vaccination into the Philippine Islands." Jenner himself did not get a statue till 1858, or sixty years after his discovery was announced, and thirty-five years after his death. Since that date the practice of vaccination is widespread in the archipelago, and the Dict. Encycloped. says that the natives are favorably disposed to it. At any rate, according to Cavada, in almost every village there was a public officer styled vaccinator, who was usually not a physician.

Quarantine was enforced as occasion arose. A frequent complaint in Stevens' book is that the mails and shipments were delayed by quarantine. However, the quarantine of 1200 islands, with a tariff inviting smuggling, is not an easy task.

So much for public prophylaxis, which, though essential, should not render unnecessary the far easier individual prophylaxis. The essence of this latter may be expressed in that fine German motto: *Nur mässig*—be moderate! Moderation is the substance of the following advice given by Barcones, Hoess and other physicians who have lived and practiced in the tropics.

Food.—In hot climates digestion is slower and all secretions, except the sudorific, are less than in the temperate zones, hence the visitor to the tropics should leave behind him his former habits of eating and should accustom his digestive tract to the foods of the country, which are largely pleasant fruits. He is tempted to overindulge or to eat as freely as in his former environment, and as a result he is liable to acquire dilatation of the stomach, gastric catarrh, etc. These fruits ripen

quickly and decay soon, hence the danger of diarrheas and other infections. They are acid, and hyperacidity is an obstacle to the absorption of lime and other salts needed by the system.

Exercise.—The heat inclines one to avoid exercise, but the latter is necessary to prevent the system from becoming enervated and the nutrition from being impaired. On the other hand, overexercise in a hot climate is injurious, and he will be a fortunate man who can wisely strike the happy mean.

Baths.—The heat likewise tempts one to overindulge in cold baths, that lead to frequent congestions of the stomach and bowels and afterward to a chronic condition. Baths for cleanliness are necessary; and brief ones, that are not too cold, may be moderately used for cooling the body.

Drinks.—Alcohol—whisky, beer, wine, etc.—is surely poison in the tropics if not elsewhere. I have already given Dr. Barcones' judgment on the subject. Dr. Hoess says: "Nothing is more foolish than the notion of the laity that alcohol is the best preventive of malaria." He bases his judgment on his personal experience. Coffee, tea, milk and water, which Nature provides in those climates, are the drinks which Nature meant man to use.

Sterilization.—Since germs multiply rapidly in hot, moist climates in every organic tissue, all articles of food and drink should be sterilized before being taken into the body, and this is best done by cooking. Fresh fruit with its rind not removed is sterile, but if it has been peeled or has stood long, it may easily become a nest of germs. Finally, Barcones gives the homely advice, to wear flannel belts, not to stay in the fields after sundown and not to sleep on the earth or in low dwellings with the windows open.

Here, if anywhere, the Americans should follow "plain living and high thinking," as well for their own sake as for that of the people toward whom we have now assumed responsibilities. Some foolish Padre—quoted by Worcester—said: "The Filipinos are big children who must be treated as little children." It would be unwise to accept a *bon-mot* as a philosophic aphorism or a political rule. The father who constantly threatens and beats his child to make it be "good" brutalizes both himself and his child, and since in the name of humanity we fought Spain, let us take care lest by being selfish and unjust we invite Nemesis and become as inconsiderate and cruel as the Spaniard is alleged to have been. It will require deep study, much self-control, great unselfishness and prayer to keep us as a nation pure-minded and honorable. In this spirit I submit this paper as my contribution in the work of learning the needs, and relieving the necessities of our new-found, dark-skinned brothers.

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NEURASTHENIA: SOME POINTS IN ITS PATHOLOGY AND TREATMENT.*

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The comparatively sudden recognition, through the work of Dr. Beard, about a quarter of a century ago, of the morbid state since known as neurasthenia, forms one of the curious chapters in the history of medicine. While there is ample proof and ample *a priori* grounds for believing that there has been a tremendous increase of the condition in recent times, it is also equally certain that it is older than the history of medicine. We find the familiar syndrome of insomnia, nervous anxiety, disturbance of vision, ringing in the ears, vertigo, and difficult breathing described by Hippocrates.[1] Passing over the intervening centuries, and simply noting a few suggestive titles in literature, we find one of Robert Whytt's, in the middle of the eighteenth century—"Observations on the Nature, Causes and Cure of those Disorders which have been Commonly Called Nervous, Hypochondriac, or Hysteric; to which are Prefixed some Remarks on the Sympathy of the Nerves." This was honored by a translation into French. Coming down to the present century, the "Erethism Nerveux" of Depau, 1819; the Neuropathie or Vapours of Doujens, 1824; the "Nevrose Proteiforme" of Cerse, 1841; and the "Cachexie Nevrose, Etate Nerveux," by Sandras, 1859; sufficiently indicate by their titles the confused recognition of the condition we are considering.

The complete pathology of neurasthenia can only be written when we fully understand the histochemistry and histology of fatigue, which are simply the chemical and structural changes incident to normal function everywhere, morbidly intensified and prolonged. I need scarcely call to mind how distant is the realization of this ideal; and yet we have sufficient information along these lines to form a substantial basis for the construction of a somewhat crude pathology, in accordance with obvious and legitimate analogies, which may serve as a useful working hypothesis to be tested and modified by further observation and study.

First in importance is the structural alterations in the ganglionic cells under the influence of overaction or fatigue, and the credit for our knowledge of this belongs to American medicine in the person of Dr. Hodge, whose investigations have been followed by similar work all over the scientific world, culminating in the recent tentative volumes by Barker and Van Huchten. The detailed discussion of these changes would lead me too far and I must content myself by pointing out that it has been satisfactorily proved that there are definite structural alterations of the neuron, as a result of fatigue, which can be positively demonstrated under the microscope by the proper technique. The most constant phenomena observed by different investigators are shrinkage or disappearance from the cell body of certain granular masses variously known as Nissl bodies or tigroid masses, the precise nature, function and significance of which still remain in doubt. Whatever views may be entertained with reference to the validity and importance of the neuron as an anatomic and physiologic unit, they can have no bearing on the authenticity of these observations, and their significance is of equal importance, compared with either the older or the newer conceptions of nerve structure.

*Read before the Chicago Society of Internal Medicine, March 29, 1900.

1. Mathieu, A.: Epuisement Nerveux, Paris, 1892, p. 7.

In close juxtaposition to these observations come those of Nissl, Goldscheider, Dana, Lugaro, and others, on the effect of various inorganic and organic toxins on the structure of the cell body in the way of cell atrophy, morbid pigmentation, destruction of tigroid masses, etc.; these, while possibly, but not certainly, varying with the kind of toxin used, bear a general resemblance in character to those produced by excessive fatigue.

It is true that the loss and subsequent return of function do not precisely correspond with these demonstrable alterations within the ganglionic cells; but it can hardly be doubted that such alterations, though simply an exaggeration of those occurring in normal function, must have an important bearing on the functional integrity and resistance of the nerve-cell as a unit, and of the nervous system of which it forms a part. It appears quite probable, as suggested by Barker, that the loss of function is really in correspondence with minuter structural alterations, which our present means of research are not capable of recognizing.

If it be true that many toxins experimentally introduced into the circulation produce such important modifications in the ganglionic cells of the nervous system, then it is a legitimate inference that some of the toxins generated within the organism may have a similar influence. Indeed it is not altogether an inference, because in the acute and chronic infections there has already been demonstrated the association of analogous changes in the nervous system. With reference to the acute infections, it has heretofore been held by most observers that they were the result of the high temperatures incident to different morbid processes. Recent investigations have shown that these alterations in the ganglionic cells do not occur in high temperatures experimentally produced, unless the latter reach 104 F. or more; strongly indicating that in most cases the cell alterations, which are found with much lower temperature, are the result of poisons formed within the organism either in the strict and narrow sense, or in the gastrointestinal tract. Some observations made within the last year, my recollection of which is distinct but the reference to which is lost, have shown similar alterations in the anterior horns of the spinal cord from a number of children who died from acute intestinal disease which can be fairly attributed, and as I remember the cases, attributed only to intoxication from intestinal toxins.

Admitting the importance of these autochthonous poisons, we have to consider the accumulation of the chemical products of molecular changes within the cell structure always and everywhere resulting from cell activity, commonly known as function. For obvious reasons, these chemical products and the phenomena of their retention and removal are best understood with reference to the muscle-cell where they are composed of inorganic compounds—mostly combinations of phosphoric and carbonic acid, the potassium salts of which in excess are certainly toxic—together with many others, organic in character, such as crusocreatinin, pseudoxanthin and other leucomains, as well as inosit and other non-nitrogenous extractives, all of which play an important, if not the principal rôle in the complex phenomena of muscle fatigue. The existence of these or analogous chemical products as a result of the functional activity of the ganglionic cells is an incontestable corollary of physiologic law; and it is more than probable that the condition of the ganglionic cell in the state of fatigue is such as to seriously impair those molecular changes by means of which it excretes, if I may so express it, its own toxic debris, and assimilates in exchange its nutrient supply from the pabulum which surrounds it. We have thus, viewing the cell as a unit, what may be justly regarded as a primary autointoxication in the strictest sense of the word. Going a step further, we may confidently affirm that under conditions of general fatigue the mechanism of elimination of poisons or their disposal by oxidation or other chemical processes is more or less seriously impaired. Chief among the factors which tend toward the retention within the organism of harmful products, is a lowered cardiovascular tension which not only impairs kidney function but removes from the local mechanism of tissues that normal *vis a tergo* on which the proper motion of the circulating fluids depends; and, finally, the same conditions of fatigue with impaired motility and secretion acting on gastrointestinal function leads to more or less imperfect elaboration of food products and, indirectly, to excessive germ action, more especially in the intestinal tract, although frequently in the stomach also, with the necessary production and absorption of bacterial toxins which still further overburden the already weakened defensive and eliminative machinery of the body.

From these and many other considerations of a like character it would appear that the symptom-complex known as neurasthenia, is due to, or at least associated with, disturbances of the most diverse character and wide-spread distribution; and that the numerous attempts to sharply define the condition—such, for instance, as Huchard's conception of it as an arthritic neurosis—and Glenard's overestimation of the importance of enteroptosis—as well as the vasomotor theory so strongly emphasized by Savill—are based on an imperfect and narrow conception of its complex and diverse pathology. These changes probably involve the minute structure and chemistry of the neuron as the principal, but not necessarily the primary, factor. Certain conditions are so strongly predisposing in their character as to be justly classed with the causes, properly so-called. In this connection various clinicians, among whom I may mention A. Matthieu, speak of secondary neurasthenia in organic disease, such, for instance, as tuberculosis and heart disease, in which toxemia and malnutrition are conspicuous. Such disturbances are peculiarly liable to occur in connection with gastrointestinal disease. Some two or three years ago I published an article on what I then termed the neurasthenic symptoms of gastrointestinal disease. Subsequent study of a large number of cases in private practice, with a somewhat extensive review of the literature on the subject, has forced on me the conclusion that those presenting the symptoms referred to—really the symptoms of neurasthenia—should have been called neurasthenia of gastrointestinal origin, though I do not asume this to be true of all cases of neurasthenia with associated gastrointestinal disturbances. The opinion of Charcot, that the gastric symptoms were *always* the result of the neurasthenia, is undoubtedly true of a large contingent of cases, but his assertions have been altogether too sweeping. Savill, who was a pupil of Charcot, and translator of his works, says that he has searched his writings in vain to find adequate reasons for his opinion on this question, and declares that Charcot, contrary to his usual custom, has made assertions without sufficient proof. I have carefully examined his clinical lectures (Lecons du mardi) and can fully substantiate Savill in regard to this point.

It appears to me, in the first place, that the facts already cited in this paper furnish abundant *a priori* grounds for supporting the plausibility of the possible

gastrointestinal origin of neurasthenia. That profound disturbance of the digestive organs can exist for any great length of time without producing alterations more or less deep-seated in the central nervous system, is a proposition against which is arrayed a vast accumulation of physiologic and clinical facts. Enough has been said concerning the histologic and chemical aspects of the question; the clinical data will next engage our attention.

The clinical histories furnished by patients are frequently, it is well known, unreliable in many of their details. And whether the neurasthenic symptoms of indigestion, were precedent in point of time in any given case, may often be a matter of doubt. In some cases, however, the gastric symptoms are so conspicuous for so long a period of time before the distinct development of the neurasthenic symptoms, as to leave no doubt as to the order of development. Take for instance a case like the following: Mr. H., a merchant, aged 45, consulted me two years ago on account of a severe indigestion of about two years' duration. There was no free HCl with extreme atony of the stomach, considerable food being found in the morning, fifteen hours after the last meal, together with a large quantity of mucous secretion of a thick tenacious character, which was heavily laden with germs of diverse kinds. The case proved a very intractable one, but I persevered for months and was finally rewarded by a compensatory hypertrophy and a return of HCl secretion nearly up to the normal standard. This took about one year; and for several months of this period there was not a single symptom which could properly be classed as neurasthenic. During all this time, however, and especially during the very early period of treatment, there were found in the urine unmistakable evidences of a profound toxemia, which was, as the sequel showed, gradually producing alterations in the central nervous system, and so furnishing the groundwork, if not the very essence of the neurasthenic state which unexpectedly developed at a time when stomach function had vastly improved but was still sufficiently impaired to directly and indirectly produce and keep up severe autointoxication. The clinical picture of neurasthenia was somewhat suddenly, and without any adequate cause, added to the case; the result, as I fully believe, of the alterations produced in the central nervous system in the manner already indicated. Here was a case under constant study and observation in which the order of events was unmistakable. I have picked out at least twenty-five or thirty from my notes, of patients in whom the evolution of symptoms, while not personally observed, appeared unmistakably the same as in this one.

There is another method of studying this question—one which is more reliable than the clinical histories related by patients. I refer to the clinical study of the variations in the symptomatology of cases put to the therapeutic test. This brings up another question, or rather a modification of the one under discussion, as to the importance of gastrointestinal disease in the aggravation and perpetuation of neurasthenic symptoms in cases in which the neurasthenia is clearly the primary condition. For if it is true that primary gastrointestinal disease can cause neurasthenia, it follows, as a necessary corollary, that gastrointestinal disease, even when secondary to the neurasthenia, will act as an auxiliary etiologic factor. For this very reason the sequence of events in the evolution of any given case is a matter of subordinate importance from a clinical point of view, although always of the highest scientific interest. The real practical question is whether or not the gastrointestinal disease is capable of exerting a prejudicial effect on the progress of the case.

In studying the question from this point of view, my methods have been as follows: Cases presenting gastrointestinal disease, irrespective of its priority, were subjected, so far as possible, to the most thorough clinical investigation of all secretions and excretions. The fasting stomach was uniformly examined and any contents obtained subjected to suitable chemical and microscopic study. The Ewald test-breakfast was administered and examined in the conventional time and method. The urine was carefully analyzed, twenty-four hour specimens always being procured, with a complete estimation of urea, uric acid, chlorids, phosphates and sulphates, the latter of which were either differentiated into fixed and ethereal sulphates or careful approximate estimates made of indican, phenol, and associated compounds. The feces and colon washings were constantly submitted to microscopic and recently to spectroscopic research, with a view of determining the evidence of excessive bacterial, protozoal, or other parasitic organisms which might prove a possible source of autointoxication as well as of abnormal coloring matter. The conditions thus ascertained were carefully connoted with the symptoms presented, and variations in each were studied with the view of noting correspondences or differences. It would be impossible at this time to do more than give the briefest sort of general statement, and I will simply say that on thorough disinfection of the stomach and large intestine I have seen the most remarkable and immediate amelioration of symptoms in many cases, and in some many times, where the syndrome was that of a typical neurasthenia. This has occurred so often under my own observation that it amounts, in my mind, to absolute proof of the etiologic relation of gastrointestinal disease to the condition known as neurasthenia. It appears perfectly clear that if these conditions can immediately and unmistakably intensify the symptoms of neurasthenia with equally immediate amelioration on their correction, then the possibility of such conditions acting as a primary cause is settled beyond a doubt.

The difficulty in determining whether the neurasthenia or the gastrointestinal disease was the primary condition in any individual, is often very great and frequently insurmountable, but from a practical point of view it does not appear to be important. If the gastrointestinal disease is purely neurasthenic in its inception, it soon becomes much more than this in a large number of cases, and requires much the same line of treatment whether it is primary or secondary.

In this connection, I desire to emphasize one fact to which I have repeatedly called attention, viz., the occasional latency of gastrointestinal disease. I have seen many cases and published reports of some of them, in which these conditions were entirely unsuspected, and yet were, as the sequel showed, the undoubted cause of more or less nervous disturbances. So that, even in the absence of conspicuous stomach symptoms, the possibility of latent disease should always be kept in mind. This general fact has been very forcibly stated by that acute observer, Dr. Beard, who said: "Indigestion, however complicated, or by whatsoever causes produced, may affect every part of the body except the stomach, and in ways beyond computation; . . . and very frequently patients chase up one symptom after an-

other until they get wearied, without either finding relief, or suspecting the true seat of disorder."[2]

One of the most important problems in the study of neurasthenic patients is that connected with the phenomena of tissue metabolism. I can not enter into a detailed discussion, but I wish to call attention to a group of cases in which the chemical processes of the body seem to fully share in, if not to bear the brunt of, the neurasthenic state. They are clinically represented by the phenomena of a more or less marked hypoazoturia. From my notes I have selected 40 cases, which are of sufficient importance to form a special group and be studied by themselves; in these the daily output of urea averaged less than 10 grams. The average is rather too high to adequately express the conditions, because of the inclusion of a few cases in which the urea was as high as 19 grams, that really should have been left out. The lowest quantity found was 2 grams in 1 case and 3.25 in another; 10 had 5 or 6 grams; and the remainder ranged from 6 to 19. The uric acid was estimated in 25 of these 40 cases, and was found to average .75 gram, or about the normal quantity; its ratio being high, about 1 to 13, because of the absolutely small quantity of urea. It might be thought that in at least some of these cases these conditions would be the result of renal insufficiency, but there was, in the first place, a complete absence of all signs of organic disease; and, in the second, the quantity of urea rapidly increased under suitable treatment. In 1 case, for instance, the record shows that during the first ten days of treatment three analyses were made—2.63, 8.58 and 9.84 grams. The treatment in this case consisted of a modified rest cure, the patient remaining in bed until 11 a.m.; a very little gastric lavage, with hot and cold douches over the entire body; and static electricity. The largest quantity of uric acid found in this series of cases was 1.77 grams, or about 25 grains; the smallest .32 grams, or about 5 grains. In regard to the uric acid excreted generally in neurasthenia, while I have not yet found time to study the notes of a larger series of cases with a normal or excessive excretion of urea, an excess does not appear to be directly connected with the neurasthenic state, but every now and then occurs in very large amounts, apparently as the result of some particular perversion of metabolism, the exact nature of which is at present obscure; and, I have found the same occasional excess quite as frequently in groups of cases of chronic nutritional disease, other than neurasthenia, e. g., diabetes mellitus. I use a modification of the Hopkins method in which I have the fullest confidence, as I have many times verified it with standardized solutions of uric acid.

In this same series of 40 cases the gastric juice was examined in 24 with the following results: In 6 there was no free hydrochloric acid; in 10 there was subacidity varying from 5 to 25 degrees; in 6 it was strictly within the normal range, from 30 to 50 degrees; while in 2 it was in excess, in one 65, the other 70. In all of these cases, including the 6 in which the hydrochloric acid was normal, there were more or less distinct signs of gastric disturbance, and the microscopic examinations of the fasting stomachs invariably showed pathologic debris.

The discussion of the treatment of neurasthenia must be greatly abbreviated owing to the details already entered into with regard to other questions. Rest must form the essential and rational basis of any and all lines of treatment, and everything else must be subservient. It should be, in practically all cases, of a modified type, rarely absolute, but this must be determined by the individuality of every case; the object being to secure a proper combination of rest and open air exercise, with massage in cases in which the strength does not permit of adequate exercise.

Hydrotherapeutics has served me well. The precise form and vigor of the hydriatic procedure must be regulated entirely by the clinical picture presented, and by the undetermined factor of reaction, which can only be learned by experimental observation. A hot douche or spray of the entire body, from 110 to 120 F., according to the reaction on the part of the patient, followed immediately by a cold douche at from 90 degrees in delicate patients, in the beginning of a course of treatment, down to 50 or less, has given me best results. Ordinarily this procedure is to be applied every other day. There are others more or less severe, the availability of which can only be determined by a careful study of the particular case in hand with reference to the processes of nutrition and secretion, and constructive and destructive metabolism, which are thus modified in a manner and to a degree which nothing else, so far as I know, can accomplish.

Electric treatment is also of great value. Static electricity, in so far as its effect on the general organism is concerned, appears to head the list. For the treatment of local neurasthenic symptoms, such as morbid cephalic sensations, rachialgia, extreme intestinal atony, neurasthenic weakness of the sexual organs, etc., faradism and galvanism properly combined or alternated have served me best.

I come now to what appears to be a matter of supreme importance, viz., the treatment of local morbid conditions of special organs. In this connection the gastrointestinal tract unmistakably ranks first, for many and obvious reasons, and this statement will hardly be disputed by those who have found, as I have, along with Blocq[3] and many others, that gastric symptoms are rarely absent in neurasthenia.

The one difference of opinion is likely to be in reference to the proper methods applicable to the individual case. My own conclusion is that gastric disease in the neurasthenic patient requires, with slight modifications, precisely the same treatment that it does under other circumstances. If it is the judgment of the physician that such diseases are best diagnosed and treated by empirical instead of exact methods, relying on drugs and regulation of diet, then that is the best thing here; but if he believes that it is incumbent on him to positively know, instead of vaguely guess at, the pathology of any given case, then here as elsewhere he will in the majority of cases, proceed first to make a full diagnosis according to the most approved methods. The logical sequence of such a diagnosis can only be the formulation and adoption of such a method of treatment as appears best adapted to meet the conditions thus determined. In most cases there will be found defective digestive secretion, atony, excessive mucous secretion and, in many, or perhaps most cases, a local expression of that irritable weakness which forms so salient and conspicuous a feature of the general clinical picture. Proper regulation of diet, thorough mastication of food, ample supply of fluid for the purposes of tissue metabolism, preferably taken an hour or more before meals, together with a general line of treatment suitable to the neurasthenia, will frequently be all that is necessary to dispose of the

2. Beard: Nervous Exhaustion, 1894, p. 126.

3. Blocq, Paul: Neurasthenia (Translation of critical digest), Brain, 1891, p. 315.

stomach symptoms in the milder grades of cases. The exhibition of bromids in neurasthenic dyspepsia, while lauded by many authorities, has for the most part proved disappointing in my hands; and as a general proposition it is true that in the gastric disease of neurasthenia, as in other cases of gastric disease, drug treatment is for the most part futile and frequently sinister in its effects.

It appears that in the severer grades of stomach disease, it matters not whether the case is one of neurasthenia, diabetes, or something else, there is but one rational method, and that the direct one, with such modifications and additions as the case may require.

The irritable weakness to which I have already referred will occasionally produce a morbid reaction on the part of the patient, which will make either the propriety of the continuance of this line of treatment a matter of doubt or its discontinuance imperative. I have found this true in several cases; those, too, in which the treatment was clearly and unmistakably indicated. I remember one of a young physician who was apparently born neurasthenic, but the gastric symptoms were the most conspicuous and troublesome features in the case. The fasting stomach contained about two ounces of pathologic fluids and food debris, and yet every attempt at direct intragastric medication produced such a reaction on the part of the patient as to make his condition distinctly worse. I know of no way to positively determine whether or not such methods are available except by the test of experience. In many of the cases apparently unfavorable from this point of view, local stomach treatment has been borne without undue reaction, and with conspicuous benefit. Many a time I have seen insomnia and the various forms of cephalic and abdominal distress disappear in a few days after the institution of intragastric treatment, and this after other methods had been followed for weeks in the vain hope of saving the patient the unpleasant ordeal of such treatment.

Cases like the one referred to are in my experience exceedingly rare, but a few such would explain the sweeping condemnation of Charcot in regard to local gastric medication in neurasthenia. He said that he had seen bad results from its use. What physician, experienced in such methods, has not? We can no more reckon with the idiosyncrasies of the stomach in neurasthenia with reference to local treatment, than we can with the same sort of idiosyncracies in syphilis with reference to the iodids, or in anemia with reference to iron. But we will not condemn the iodids in the one instance, nor the iron in the other, because of an occasional intolerance; nor is it any more rational to condemn intragastric methods in neurasthenia because of similar exceptional results.

I will refer to only one other question in the treatment of the digestive organs, viz., the management of the colon. As the result of the gastrointestinal indigestion and atony, we have a local infection of the colon with accumulations of mucus, epithelium, food debris, etc., which act on the nervous system by reflex irritation, and furnish indefinite quantities of bacterial toxins for absorption. These add to the autointoxication and render more arduous the struggle of the organism in the processes of elimination. Inasmuch as it is a very simple matter to clear this material out of the colon by suitable local treatment, this should be done in all cases in which a proper examination shows that it is indicated. The patients can not do this satisfactorily; either the physician or a trained assistant should personally attend to it, and see that these accumulations are removed. More than this, by using extremes of temperature for the irrigating fluid, atony of the intestinal wall can be directly counteracted; and, in fact, the entire nervovascular mechanism of the splanchnic area stimulated and modified in a favorable manner, which has an important bearing on all the principal functions of the abdominal and thoracic viscera.

I do not wish to be understood as advocating the use of the stomach-tube in every case of neurasthenia, although as my experience widens, the tendency is to use it in a larger and still larger number of cases. I have no doubt that many patients with mild, and some with severe, stomach symptoms, will do very well without it, but an honest study of somewhat extensive clinical data, has forced me to a more aggressive line of treatment in this direction; and in many cases in which I thought it would be illy borne or not tolerated at all, everything has gone smoothly and the most signal benefit has accrued.

I need hardly say, in conclusion, that my intention has not been to formulate a definite pathology, for this can only be done with post-mortem data which are not yet available, and probably will not be for some time. I believe, however, that a good working hypothesis, based on well-known analogous facts, which come very close in this instance to removing it from the domain of hypothesis to that of respectable theory, is infinitely better than pathologic nihilism. It gives us a tangible conception which can be tested by experience and study; and if it should not prove to be the whole truth, as it probably is not, it will at least help to lead us in that direction.

DISCUSSION.

DR. EDWARD F. WELLS—I am not prepared to discuss this paper *in extensio*, but some of the observations mentioned impress me with peculiar force, inasmuch as my attention has long been directed to a class of women mostly from 40 to 50, or more, years of age, in whom careful observation, for months and years, has shown the excretion of urea to be constantly materially reduced. Women of average size, and taking an average amount of exercise, have been passing only from 150 to 200 or 250 grains of urea a day, and the long time which these patients have been watched renders the observation quite significant in this connection. My cases have not been accompanied by albuminuria, and casts have not been found in the urine except accidentally. I always have endeavored, by every means at my command, to increase the excretion of urea in these patients; I have tried exercise, massage, diet, forced feeding, rest, etc., and I have absolutely been unable to make any material change in the amount of urea excreted in those cases that would continue for any length of time. Often, following the therapeutic measures adopted, an increased output of urea would be noted and I can easily understand how, if one saw cases of this kind, and judged their condition as reactive capabilities for a short time, the apparent improvement might have been the result of treatment, and that it would be permanent, but I will venture the assertion that if these patients are closely watched for six months or a year afterward it will be found that their condition will be found much the same as before the treatment was begun. My patients of this class have been uniformly nervous; however, I would scarcely consider any of them as being strongly neurasthenic, but they have been always ailing, constantly chasing symptoms, seldom very sick, or if overtaken by a serious illness they were rather sure to recover.

When I first began to study these I looked on them with much aprehension. I feared the condition was the beginning of Bright's disease and that the failure to detect casts, etc., might be due to fortuitous circumstances, but I now feel reassured that this condition is not incompatible with long life.

One of my patients is now 55 years of age, and has been under observation for nine years, and the condition still continues.

I would ask the essayist, in closing the discussion, to give the means that he makes use of in order to increase the excretion of urea in these cases, or in any in which the amount of urea is constantly low.

DR. JOS. M. PATTON—I am inclined to agree with Dr. McCaskey in his estimation of the importance of gastro-intestinal conditions. I have always looked on the derangement of the gastro-intestinal tract as probably a principal, primary factor in the production of nervous conditions. Nearly all of these patients give a history of disturbance of the stomach and intestinal indigestion, and subsequently the production of a chain of nervous symptoms which would indicate autointoxication. I hardly think we are warranted in going as far as Bouchard has done in enunciating his views with reference to autointoxication, but we often find disturbed action of the heart and of respiration, abnormalities in the peripheral sensations, inequalities in the peripheral circulation which appear to be so directly connected with intestinal conditions where the digestive functions have been at fault, that it seems difficult to escape the conviction, judging from a clinical standpoint, that this is the most important factor in the production of the subsequent train of nervous symptoms. We may make a mistake in doing so, but the clinician can hardly escape that ground. It seems forced on him, both from the sequence of events and the results which he gets from treatment directed toward the gastro-intestinal tract. I can corroborate the belief of the essayist in the efficiency of such treatment, though I have not followed it as thoroughly as he has indicated. As far as I have gone the relief has been proportionate to the efficiency of the means employed.

DR. FRANK S. CHURCHILL—I am not so much interested in the cases of neurasthenia themselves as I am in finding out, if possible, what are the conditions which have gradually led to this affection. In other words, I have been much interested in studying the children of neurasthenics and in finding out, if possible, the tendencies in those children—when they reach adult life—to acquire this disease. We rarely, if ever, see neurasthenia in children. If I have seen it, I have not recognized it. A study of the various nervous conditions in children may result in much good in preventing the subsequent development of neurasthenia in later life. Our work should not only embrace a very careful study of the family history, but we should endeavor to find out what abnormalities have occurred in different members of the family, especially in the father and mother, in the grandparents, in the uncles and aunts. By so doing we shall find out the tendencies with which the child starts in life. A careful study of the children of neurasthenics, inquiring into hereditary tendencies, the family history, careful attention to the physical, mental and nervous development of children, will do much toward the prevention of the development of neurasthenia or neurasthenic symptoms later in life.

DR. G. W. MCCASKEY, closing the discussion—With reference to the question asked by Dr. Wells, as to the best means of increasing the amount of urea excreted, forced feeding is the most important point; next to it out-door exercise. Other measures are the use of hydrotherapeutics which can influence metabolism to a remarkable degree, electricity, massage, etc. In every one of the patients treated by me the urea excretion has increased during the progress of treatment; although they nearly all of them have stopped it with only a relative or symptomatic cure before reaching the physiologic standard. The inherent weakness of the nervous system, which constitutes the essential basis of the neurasthenic state, has its influence directly or indirectly on tissue metabolism, and it is this which has to do largely with the lowered excretion of urea. Whatever will strengthen the nervous system; whatever will improve cardiovascular tension; whatever will quicken the chemical processes of the body, taken in connection with forced feeding in these cases—these are the measures which will give the best results. Yet there may be cases in which this tendency will return and persist and will perhaps be one of the most important neurasthenic features. I see no reason why the neurasthenic picture itself may not be accentuated in this way with defective tissue metabolism expressed clinically by an insufficient urea excretion. Whatever will improve tissue metabolism in other ways will improve this condition, if an adequate amount of food can be taken, with suitable improvement of the digestive organs.

In regard to the importance of autointoxication, while Bouchard's views may have been a little extreme, the more I have studied these cases and this question, the more important in my estimation, autointoxication becomes. It seems to me that almost every morbid process is necessarily associated with what might be called a sort of autointoxication. If any cell in the body becomes impaired in functional activity, that cell is relatively unable to dispose of the injurious elements resulting from the molecular changes within itself, and these accumulations constitute a veritable intracellular autointoxication—the fundamental and primary expressions of this morbid phenomenon.

The point made by the last speaker with reference to a study of these conditions in children is an important one. It opens up the question as to whether in many instances, instead of an inherent weakness of the nervous system, we have not an acquired weakness of the nervous system, which is due to bad training in childhood, to improper feeding, unhygienic surroundings, and various prejudicial influences which tend to weaken the nervous system.

With reference to the possibility of neurasthenia developing in children, so far as I recall, the youngest case on record is that of a girl, 12 years of age. In nearly all the cause has not been what it usually is in the adult, viz., worry and mental strain, but merely shock. Charcot says that neurasthenia hardly ever develops in people under 16 or 18 years of age.

REPORT ON MASSAGE.

BY DOUGLAS GRAHAM, M.D.
BOSTON.

When we come across good things in medical literature it should be our duty and pleasure to pass them along to those who have not easy access to the same. Hence the need of occasional reports. That distinguished old mirror of the profession in England, *The Lancet*, has been rather slow in waking up to the merits of massage, yet what it has had to say of late on this subject is of so much importance that we can afford to let French and German literature rest for a time while we briefly report what our English cousins have been doing in this line.

In 1884 your reporter wrote that no more fertile field awaits the investigations of physiologists than that of ascertaining the similarities and differences existing between exercise and massage.[1] Partly in fulfillment of this prophecy we present the following:

THE EFFECTS OF BATHS, MASSAGE AND EXERCISE ON THE BLOOD-PRESSURE.

In *The Lancet* for June 10, 1899, Drs. Edgecombe and Bain have given a detailed account of their experiments to determine the effects of baths, massage and exercise on the blood-pressure. For arterial pressure the radial artery was taken, the subjects being in the recumbent posture, with the arms extended in a line with the heart. For venous pressure the veins in the back of the hand were taken in some, in others those of the forearm. Ten subjects were experimented on, and the results were confirmed by repeated observation.

Cold.—The effect of the cold bath was to raise the arterial and to lower the venous pressure. When to cold, percussion was added in the form of a strong needle douche applied simultaneously to the surface of the

1. A Practical Treatise on Massage, 1884.

whole body, the arterial pressure became raised to a greater extent than with cold alone.

Heat.—The effect of warm baths of plain water, on the other hand, was to reduce the arterial pressure to an extent roughly *proportionate* to the increase of temperature. The fall in venous pressure was in greater proportion than the fall in arterial.

Heat and cold alternately.—In the alternating needle-bath or Scotch-douche, where the temperature is made to rapidly oscillate between warm and cold, the net result was a rise in arterial with a slight fall in venous pressure.

Massage.—Observations led Drs. Edgecombe and Bain to the conclusion that general dry massage, in the form of *pétrissage*, while it may cause an initial rise of blood-pressure of brief duration, produced as the net result a fall in arterial pressure both mean and maximum, provided the abdomen was not *masséed* too vigorously. Deep massage and compression of the abdomen caused an immediate rise in blood-pressure by dispersion of blood accumulated in the splanchnic veins into the systemic circulation. The venous pressure was observed to be always relatively, and in some cases actually, raised; the amount of rise appearing to depend to some extent on the temperature of the room, being greater in a warm atmosphere. This confirms the experiments of Drs. Brunton and Tunnicliff on cats, made some years previously, that massage of a considerable muscular area caused first a rise in the general blood-pressure, which was followed by a fall, in some instances as much as one-fifth of the original pressure.

Wet massage in the form of the Aix douche, in which massage is administered under a warm douche conveyed by a flexible pipe playing between the hands of the masseur, causes an increased effect—temperature added to massage. Here was observed a greater fall in arterial pressure than was obtained with dry massage, and coincidently an actual rise of venous pressure.

On the other hand, wet massage in the form of the Vichy douche, in which massage is administered under a warm needle spray, the patient being in the recumbent posture, causes a rise in all pressures, maximum, mean, arterial and venous. The difference between this bath and the preceding is due: 1, to the percussion of the needle-spray tending to raise the pressure, and 2, to the fact that the patient being in the recumbent posture abdominal massage is more efficiently performed and hence a rise in pressure results. Vigorous abdominal massage would seem to abolish the fall produced by massage of the limbs and the rest of the body, and when this was but slightly performed, the net result was a fall. The influence of warm temperature plus massage was to considerably augment this fall. In all probability the factor primarily and chiefly disturbed by massage is the peripheral resistance rather than the output of the heart, and the result is to be attributed mainly to diminished resistance from arteriolar dilatation.

Exercise.—The effect of exercise on the blood-pressure depends on the severity of the exercise. In all forms an initial rise in arterial pressure occurs; if the exercise be mild there is a fall during its continuance; if severe, the rise is maintained; after exercise, moderate or severe, a fall takes place. The venous pressure is raised during all forms of exercise and remains raised during the subsequent arterial fall. The return to normal after exercise takes place more or less rapidly according to the gentleness or severity of the exercise and the temperature of the atmosphere.

MECHANOTHERAPY OF MOVABLE KIDNEY.

In *The Lancet* of Jan. 29, 1898, Dr. A. Symons Eccles gave an interesting report of the treatment of movable kidney by means of mechanotherapy. Since 1892, 21 cases of floating kidney attended with local pain and tenderness have come under his observation and treatment. Of the 21 patients, 5 were greatly improved by abdominal massage, exercises and the application of a pad and belt, and 1 of these has been free from all discomfort for five years, another for two, whereas both had before suffered from pain and general disturbance at intervals for prolonged periods. Sixteen have been treated by "the rest cure" for periods ranging from fourteen days to eight weeks, and of these 7 were lost sight of within four months after treatment; 1 was a complete failure, and 8 he has recorded in detail, having selected them as typical of the varying conditions under which, in males and females, movable kidney may give rise to very marked suffering, often without any knowledge on the part of the patient that nephroptosis existed or could cause the gastric, hepatic and nervous symptoms of which they complained. The results obtained in these 21 are for the most part so satisfactory that they bear favorable comparison with records of those treated by operation, and in view of certain cases which have occurred there is something left in favor of employing milder means for the relief of nephroptosis than surgical interference involving either nephrorrhaphy or nephrectomy. Early diagnosis, reposition and the maintenance of the organ in its normal place by methods which also conduce to the improvement of general health would appear to go far toward the relief of the patient from the necessity of having the kidney stitched into its place or removed from the body, as the advocates of early operation advise.

At any rate, sufferers from freely movable kidney should first be subjected to treatment by rest and massage followed by exercises devised for improving the muscularity of the abdominal walls before they are exposed to the risks which exist, however small they may be rendered by the skill of the operator. No harm arises from the delay which may be fairly entailed by the "rest cure, and if any local surgery should afterward prove to be necessary because of failure to relieve pain by the means here advocated, the sufferers will be rather better than worse able to undergo the operation. Especially does this appear to be the case when it is remembered that the best results obtained after operation can be secured only if we should keep the patient lying in bed for at least six weeks, no matter whether the wound has healed by first intention or not.

In these cases of floating kidney, no less than in other forms of enteroptosis with so-called functional disorders of digestion, the indications are to restore healthy tone and to induce the redeposition of fat and flesh to the abdominal walls, as well as to improve the nutrition of the viscera and replace the packing material of fat, which in many cases has vanished. This in most instances can be done by judicious combination of frequent massage of the abdomen and loins, carefully regulated diet, and finally gradually increased exercise, precautionary measures meanwhile being adopted by posture, rest, and mechanical support to prevent and counteract the tendency to displacement and undue mobility engendered by lack of proper support for the viscera.

MASSAGE IN RECENT FRACTURES.

The use of massage in the treatment of recent fractures finds an earnest advocate in Dr. Wm. H. Bennett,[2] of St. George's Hospital, London, who has had practical experience of its benefits in a number of cases. This method has not received the general attention in England which it deserves, owing to the traditional belief in the necessity for complete rest and immobility. Massage in ordinary cases of fracture can be used without producing any movement between the ends of the bones worth mentioning, but the question is very appropriately raised whether slight movement between the fragments is not conducive to union rather than the reverse, in view of the fact that in many cases of fractures in which the union is slow, consolidation rapidly takes place when some mobility between the ends of the bones is brought about by the use of the limb or by pasisve motion.

The stiffness and pain which follow in many of these cases is often erroneously attributed to adhesions in or about the joint, but Dr. Bennett believes that this is practically always due to matting of the soft issues about the line of fracture, and the opportunity of dissecting a case forcibly confirms this belief. It was one of fracture of both bones of the leg three inches above the ankle, two months previously. The fractured parts were firmly united and the position of the fragments fairly good. No movement beyond a little springing of the ankle-joint could be produced by force sufficient to break down joints." The ankle-joint was healthy and the stiffness was entirely due to the state of the soft parts about the fracture. The anterior tibial muscle at the point of junction with its tendon was firmly adherent to the bone; the muscular structures at the posterior aspect of the fracture had apparently been slightly torn and were with their tendons intimately adherent to the bone by cicatricial tissue, in which the posterior tibial nerve was involved and could be liberated only by careful dissection; the nerve showed no signs of having been damaged at the time of the accident. All movements of the ankle-joint beyond that allowed by the mere elasticity of the parts appeared to be checked by the adhesion of the tissues mentioned. When the adherent structures had been loosened by dissection, the ankle-joint could be freely bent and moved with comparative ease. The implication of the posterior tibial nerve affords an explanation of the acute nerve pain caused by attempts at movement of the ankle-joint in walking after some cases of fracture of the lower part of the leg. In the treatment of cases of recent fracture, by massage, this matting of the soft parts is impossible; the tendons are prevented from becoming adherent, the muscles do not waste, the joints are kept supple and nerves can not become implicated in adhesions.

Nothing tries the endurance of the patient and the resources of the surgeon more than the distressing muscular spasm which so often occurs in the early stages of cases of fracture, and which in spite of anesthetics and minor operations—tenotomy, etc.—is in some instances practically uncontrollable until it wears itself out in the course of some days. Massage is a means by which this spasm may be frequently, if not always, controlled in a way which is remarkable to those who have not seen the effects of it. In illustration of this he mentions the case of an old woman with a comminuted fracture of the right femur. The thigh was tense, swollen and discolored, and every few minutes she shrieked with pain as the spasms occurred. At the end of ten minutes' massage, the spasms were less, and in fifteen minutes had ceased entirely, and the patient fell into a sound sleep. After this she begged for the massage, as it stopped the spasms, which soon disappeared not to return and allowed the limb to be manipulated freely. Another case is mentioned of fracture of both bones of the leg, in which there was very acute muscular spasm that was speedily allayed by massage, and then the fracture could be kept in place; before the massage this was impossible. The soothing effects of the local massage seem to be the rule in these cases, and patients otherwise constantly restless fall asleep while it is being given. The effect on the bony union seems to be to hasten the process of consolidation. The massage should be continued until the union has fairly consolidated, which varies in different cases. In a simple uncomplicated fracture of both bones of the leg a month is the approximate time. It is especially adapted for patients getting along in years, in whom circulation and nutrition are poor. The use of passive motion by which the soft parts are prevented from becoming adherent may appear objectionable, since in many cases the parts must be more or less torn. Early movement might seem likely to produce weakness, but in practice no defect of this nature appears to be brought about when ordinary care is observed. If some weakness should arise, it would be far less detrimental than the crippling which ensues on matting of the torn structures.

The difficulties connected with the application of this treatment are: 1. The large amount of time required of the practitioner in the earlier stages, during which the treatment must be carried out under his immediate supervision unless a particularly skilled person is available. 2. The difficulty of finding in all places a person capable of safely undertaking the manipulations in the later stages, which would absorb more time than busy practitioners could afford, besides other minor difficulties not worth mentioning, such as expense, etc.

2. Lancet, Feb. 5, 1898, p. 359.

REPORT OF CASE OF SPLENECTOMY, WITH ATTEMPTED SURGICAL CURE OF ASCITES DUE TO CIRRHOSIS OF THE LIVER.*

BY T. N. RAFFERTY, M.D.
ROBINSON, ILL.

Mrs. T., an American and a widow, 31 years of age, consulted me on Aug. 6, 1899, with the following history: She began life, and has mostly lived, in a malarious district; and from the age of 8 to 17 she had chills frequently—none since. Her family history was good and no history of syphilis. She began menstruating at 16; it has been painless and regular. She was married at the age of 22, one year afterward had a miscarriage, supposed to be the result of a fall, and was in bed for three weeks, with fever; she was delirious part of the time. Her menses were irregular from that time, and ceased entirely four years ago, the patient then being 27 years of age. About six years ago she began to have dull pains in the left hypochondrium, but gave little attention to them until two or three years later, when her physician told her that she had a tumor in the left side of the abdomen; he was not certain of its nature.

*Read before the Esculapian Medical Society at Paris, Ill., Oct. 26, 1899.

Two years after this she began to have abdominal dropsy.

When seen she was fairly well nourished, her skin and conjunctivæ slightly jaundiced. Her abdomen, at the umbilicus, measured fifty inches in circumference; from the ensiform cartilage to the umbilicus, fifteen inches, and from the latter to the symphysis pubis, six inches. On account of ascites no tumor could be made out with certainty. Liver dulness was increased. Examination of the urine showed a few hyaline casts, but no albumin. The specific gravity was 1.018. Examination of the blood, made some days later, showed an excess of leucocytes, but no blood count was made. There were no glandular enlargements.

On the next day her abdomen was tapped by Dr. H. N. Rafferty, and three gallons of fluid withdrawn, leaving, as we supposed, some two gallons. A large solid tumor could then be felt, filling the left half of the abdomen, and extending down into the pelvis. The hand could be pressed down behind the upper end of the tumor, but not below the lower end. The arrest of menstruation, the ascites, and the absence of cachexia presented a typical picture, as given by Kelly, of ovarian fibromata. Everything else, as well as the shape of the tumor, pointed to an enormously hypertrophied spleen. Five days later an exploratory incision was made in the median line below the umbilicus, two or three gallons of fluid were evacuated, and the abdominal cavity thoroughly explored. The tumor proved to be the spleen with numerous adhesions. The omentum was thick and large, and contained many veins as large as a lead pencil. The right lobe of the liver was found to be enlarged, covered in many places with hard nodules, and with many adhesions to the diaphragm; the left lobe was atrophied. The peritoneum and intestines were apparently healthy, the uterus and ovaries very much atrophied.

After this thorough exploration the wound was closed, and the patient's recovery from the operation was uninterrupted. The ascites, however, returned so rapidly that on the fifteenth day after the operation tapping had to be resorted to and three gallons of fluid were removed. The woman was now clamoring to have the offending spleen removed, notwithstanding the fact that I told her such an operation would not be considered a justifiable one by most surgeons; that it would almost certainly prove fatal, and even if it did not, she would still have a fatal cirrhosis of the liver left. She said she would get well, and insisted on the operation. Just at this time my attention was called to the advisability of attempting a surgical cure of ascites, due to cirrhosis of the liver, by an "operation directed to the establishment of an adequate collateral circulation for the omental and peritoneal vessels."[1] I at once determined to remove my patient's spleen, and if she did not die at once from hemorrhage or shock, to try what could be done in establishing an anastomotic circulation between the omentum and parietal peritoneum. The surroundings were about as unfavorable as could be for an operation of this magnitude, the operating-room being the living-room of the patient and her sister. On September 1, twenty days after the exploratory incision, assisted by Drs. C. H. Voorheis, of Hutsonville, Ill., O. G. Taylor, of Palestine, Ill., and James Miles, of Merom, Ind., I made an incision seven or eight inches long in the left semilunaris, beginning an inch above the level of the umbilicus and extending upward, curving the upper two inches of the incision to the left. With some difficulty the spleen was delivered. Most of the adhesions were easily broken. The pedicle, however, was enormous, being ½ by 3 inches, a mass of mesentery and large blood-vessels, held together by dense connective tissue. Six or eight heavy silk ligatures were used in tying it off in sections, then another around all. The pedicle was now cut through, and the mouths of two or three of the larger vessels were caught and tied separately. There was no hemorrhage whatever from the stump, and it was dropped back into the abdomen, without any sponging or unnecessary manipulations, for it was very noticeable that any dragging or twisting of the pedicle produced immediate unfavorable effects on both the pulse and respiration, and several hypodermics of strychnia and whisky were necessary. As soon as the pedicle was dropped, the abdomen was flooded with hot normal salt solution, and sponged with clean gauze sponges. Attention was then given to Talma's operation for the cure of the ascites. There being already extensive adhesions between the right lobe of the liver and the diaphragm, no sponging or scratching of their surfaces was done. The peritoneal covering of the anterior abdominal wall was somewhat roughly sponged with gauze and the omentum sutured to it in half a dozen places, with fine catgut. The wound was now closed in the usual way, and the patient was put to bed in fairly good condition, having had a rectal injection of one quart of hot normal salt solution, while still under the influence of the anesthetic, as suggested by Howard Kelly, to prevent the inordinate and distressing thirst which follows intra-abdominal operations.

The anesthetic used was chloroform; the time of operation, one hour and thirty minutes. The temperature was 98, pulse 120. When seen by Dr. Miles, eight hours later, the temperature was 97.5, the pulse 160 and almost imperceptible. The Doctor gave 1/20 gr. strychnia hypodermically. At noon next day the pulse was 120, temperature 100.8, with no pain or vomiting, but some nausea, and she wanted water. I gave calomel and soda to move the bowels. The patient had been able to void her urine without trouble. The next day the temperature was 99.4, the pulse 115, and the bowels had acted freely, the patient was cheerful and had no pain. During the next two days the pulse and temperature were 100, on the sixth, seventh, and eighth pulse 96, temperature 99.6; on the ninth and tenth, pulse 96, temperature 99; on the eleventh day the pulse was 90, temperature 99. The stitches were removed and the wound was perfectly healed, so I made no arrangements to return.

The patient was then cheerful, with a fair appetite, and slept well. She was still jaundiced, but there had been no reaccumulation of ascitic fluid. She was seen the next two days, the twelfth and thirteenth, by Dr. Miles, and he thought her doing well. On the morning of the thirteenth the pulse was 96, temperature 98.4 and on the morning of the fourteenth day her pulse was 100, temperature normal. At 3 p. m. of that day she was suddenly seized with symptoms of pulmonary embolism and died at 10 p. m. No post-mortem was made.

The spleeen, when drained of blood, weighed 4½ pounds, and was eleven inches long, six wide and 3½ inches thick.

Removing the organ in this case was probably not a justifiable operation, although the precise indications for splenectomy have not been definitely settled. In

1. N. Y. Med. Record, Aug. 26, 1899.

this instance, however, it was the deliberate choice of a woman who knew she had an incurable disease, and who made the choice after she fully understood the probable result. She simply preferred this manner of death to the other. The operative treatment and cure of one of the most troublesome symptoms of an incurable disease opens up a field in surgical procedure that is well worthy investigation and trial. The operation seems to have been suggested first by Talma, of Utrecht; the suggestion being that if the interrupted portal circulation could be surgically re-established the ascites would be relieved.

LARYNGEAL PAPILLOMATA REQUIRING A SPECIAL INSTRUMENT.

BY SETH SCOTT BISHOP, B.S., M.D.

Professor of Diseases of the Nose, Throat, and Ear in the Illinois Medical College; Professor in the Post-Graduate School.

CHICAGO.

The following case presents a unique feature, in that it was impossible to remove all of the laryngeal growths with any instruments that were obtainable, but that no difficulty was found operating with the special instrument shown in the illustration.

The case was that of a harness manufacturer, 50 years old, who had been in his present business thirty-two years. In 1895 he had experienced some annoyance from hoarseness; in December, 1897 he had a "cold in

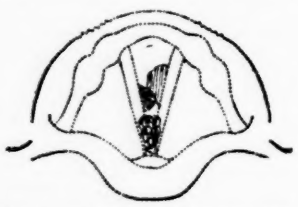

FIG. 1.—Laryngeal papillomata.

his throat," resulting in a loss of voice for two days; in the following summer the hoarseness returned and grew worse until, in November, 1898, there was complete suppression of the voice. The aphonia remained until the last of the papillomata were removed in January of the present year. The patient had been under the care of Dr. J. L. Eger, of Delphos, Ohio, who recognized the character of the tumors and referred the case to me for their removal.

Examination disclosed the condition shown in Figure 1. The anterior commissure was filled by a pale pink, lobulated mass resembling certain adenoid growths in the vault of the pharynx. Adjoining this mass was a growth on the left vocal cord, situated a little nearer the anterior than the posterior end. Nearly opposite this was a similar, though larger, tumor having a broad base, and projecting from the border of the band to meet the opposite tumor in such a manner as to bring its anterior surface in contact with the posterior surface of its fellow. The pressure of these two papillomata against each other produced a marked depression in the right one.

These twin tumors presented the appearance of gray warts of a minutely cauliflower formation, and together with the third growth occasioned not only suppression of the voice, but obstruction to the column of air, although the respiration was not yet embarrassed sufficiently to cause great distress.

My first efforts were directed toward the removal of the mass filling the anterior commissure. I attacked it with Mackenzie's biting forceps and with the crushing forceps, but found that none of the usual instruments would reach them, then I bent an electrode in such a way as to afford a very long laryngeal extremity, and with this I destroyed the large mass.

However, the patient was averse to the use of the electrode, and conceived the idea of having an extralaryn-

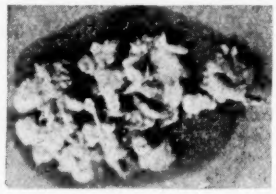

FIG. 2.

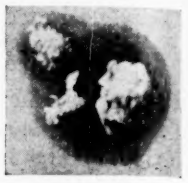

FIG. 3.

geal operation, but fortunately was convinced that the results of endolaryngeal operations were far superior to those obtained from entering the larynx from without. By using the longest Mackenzie biting forceps obtainable I removed the mass shown at the actual size in Figure 2. The larynx was situated so low that it was necessary to press with extraordinary force on the forceps in order to reach low enough to obtain this much of the growths and it was impossible to reach more with the instruments then in use. Dr. O. J. Stein kindly made attempts with his and had the same results.

Then I had an especially long biting forceps made, with which I was able to remove the remnants of the two neoplasms. After the one on the right cord was taken away, there was revealed a growth below the cord, which was readily reached and removed by directing the long cutting blades of the forceps well under the band. Figure 3 shows the actual size of the growths that were taken entirely by the special instrument, Figure 4, which is three-quarters of an inch—18 millimeters—longer in

FIG. 4.—Special Laryngeal Forceps.

the laryngeal extremity than the longest instrument I could find.

Since the operation the voice has gradually improved in strength and timbre, and under date of March 11, 1900, the patient reported as follows: "I am most delighted to inform you that my voice continues to improve; it is now almost normal, or as good as it ever was. I can halloo and, I believe, make a very fair stump speech," etc.

103 State Street.

THE BERLIN authorities have instituted a three weeks' course in the Deaf and Dumb Asylum, for physicians engaged in work among the deaf and dumb.

Therapeutics.

Pneumonia.

Walton advises the avoidance of exposure to other cases, confining of the patient to bed, avoiding all unnecessary exertion of any kind, the use of white flannel clothing, one or more daily spongings with tepid water and vinegar, and a diet consisting of milk, soups, lemonade, etc. In a robust patient at an early stage the lancet will sometimes cut short the disease, and a brisk purge and one or two large doses of quinin may be of value. The drug he most depends on its Norwood's tincture of veratrum viride, 2 to 4 minims every two hours or oftener, watching its effect on the pulse and bringing it down to 70 or 80 and holding it there. He has never seen any untoward effects and if the treatment fails to arrest the disease it makes it milder and more easy to manage. If it goes into the second stage give ammonium carbonate, 5 gr., every two hours as a stimulant and absorbent. Strychnia is the best simulant and tonic we have and should be used freely when indicated. Digitalis is of service when the pulse is weak and rapid. Transfusion of normal salt solution should be used in bad cases and opiates to relieve pain if necessary.—*Va. Med. Semi-Monthly.*

Intestinal Antisepsis by Chlorin Water.

Fitzgerald's treatment for typhoid fever is the one recommended by Yeo. The following is the formula for the preparation: Forty minims of strong hydrochloric acid is introduced into a 12-ounce bottle, containing 30 grains of potassium chlorate. The chlorin gas is at once liberated. The bottle should be tightly corked from the first. After it has become filled with the greenish-yellow gas, pure water is poured into the bottle little by little, shaking well after each addition, until the bottle is filled. To disguise the acridness of the chlorin, one ounce of syrup of orange-peel may be added, if desired. Of this mixture, one or two tablespoons may be given, in a little water, every two, three or four hours, according to indications. The odor of the chlorin is often detected in the breath and exhalation from the skin where the medicine has been properly given and it is desirable that it should be so. If necessary in any given case 24 to 36 gr. of quinin muriate may be added to the mixture, but usually it is hardly necessary. In some cases it may be well to give strychnin or digitalis, and for insomnia, codein will be of benefit. Fitzgerald has made this his standby to secure intestinal antisepsis, and he gives it night and day from the first until the temperature falls to normal and remains there. The bowels must first be freely moved by small, and often repeated, doses of calomel, followed by saline laxatives if necessary. He says give calomel—to prevent diarrhea if there be none, to cure it if it be present. Other methods of treatment are mentioned, but these are, he thinks, the most certain remedies.—*Medical Mirror.*

Typhoid Fever.

The physiologic treatment of typhoid fever is summarized by Dabney as follows:

1. Clean intestines by mild carthartic. 2. Stimulate the vasomotors by the regular application of cold water with constant friction. 3. Colonic flushings. 4. Abundance of cool water to drink. 5. Clean sheets, clean gown daily. 6. Sunlight and air in abundance. 7. Spare and readily assimilable diet at long intervals. 8. Eternal vigilance for complications. 9. Careful study of pulse and temperature. 10. Never give any remedy that increases vasomotor paresis; the coal-tar series in particular are to be avoided. 11. Avoid the use of all stimulants as a routine practice. I refer especially to alcohol, strychnin, nitroglycerin, and ammonia. There are times when we may need stimulants badly, but the average cases, if properly treated, seldom need them. The use of digitalis, though indorsed by many good men, I deem unphysiologic, and at times positively dangerous in this disease.—*Va. Med. Semi-Monthly.*

Berberin in Malarial Swelling of the Spleen.

Typaldo Lascarato (*Grèce médicale; Independence médicale*) says that berberin, in addition to its bitter tonic action, has the faculty of causing the elastic fibers of the spleen to contract, especially when that organ is enlarged, in a manner similar to that of ergotin on the muscular fibers of the uterus. This is not entirely free from danger as, if it is not administered with caution, its action may be so severe as to rupture the swollen spleen and cause fatal hemorrhage. But berberin, by rapidly and abruptly contracting the parenchyma of the spleen, drives from it *en masse* the paludal parasites which swarm in it, toward the general circulation, from which arises a fresh access of pyrexia. The administration has often been known to be followed by a brusque elevation of temperature. Many physicians have on this account considered berberin more harmful than useful. However, the author points out that this action of berberin in driving the parasites from the spleen, which is their place of election, into the general circulation is very favorable to the complete destruction and disappearance of the paludal miasm from the entire organism. The parasites expelled from the parenchyma of the spleen are spread through the general circulation at a very inopportune period of their evolution, when they engage in a deadly struggle with the phagocytes of the blood, to which they easily succumb. To aid this result, the Italian physicians, who have had considerable experience with this remedy, advise its use almost simultaneously with quinin, which attacks them more rapidly in the blood driven out by the berberin from the spleen. In all cases of swollen spleen, therefore, save those of too old standing or the ultimate result of advanced hypertrophy or degeneration of the organ, berberin is highly commended by the author. It is given in a daily quantity of from 1½ to 15 grains, according to the age of the patient, and always in combination with quinin. A favorite Italian prescription is as follows:

℞. Hydrochlorid of berberin.....gr. xv
Bisulphate of quinin.....gr. viiss
M. Sig. To be divided into four powders and one taken every half hour or hour, for an adult.—*N. Y. Med. Jour.*

Treatment of Migraine.

Dr. Henry Hanford, in an article on migraine and the vasomotor theory, speaks of the treatment as follows:

It is well known that when with headache the extremities are cold, some relief is obtained by warming the feet and hands at the fire. In many cases the recumbent position is required in addition. In a large class of patients the attack may be cut short by many hours by going to bed, applying hot bottles to the extremities, and taking a hot drink—as soon as the stomach will retain it—some hot tea or milk. A glow soon pervades the surface, and the spleen is relaxed. Relief so obtained is not very liable to relapse. After a few hours the ordinary duties of life may be resumed and, although sleep is the best completion of the cure, its place may sometimes be taken by a good dinner. I believe this treatment, when it can be carried out, to be far supperior to any drug treatment, although it may be aided by a good dose—thirty to sixty grains—of potassium bromid. It is a curious fact, and may be taken as the exception which proves the rule, that a few patients find that the recumbent position aggravates their pains and often prefer to spend the night in an armchair rather than go to bed. And also, in the last stages, moving about sometimes seems to hasten the end of the attack more than remaining quiescent.—*Edinburgh Med. Jour.*

Neuralgia.

℞. Ammonii chloridi.....ʒiii
Tinct. gelsemii.....3ii
Ext. glycyrrhiz. liq.....ʒss
Aquæ chloroformi, ad.....ʒvi
M. Sig. Dose ʒss every four hours until the pain is relieved.

℞. Butyl-chloral hyd.....3i
Ext. cocæ liq. (miscible).....3vi
Glycerini.....3ii
Tinct. aurantii.....3ii
Aquæ dest., q. s. ad.....ʒvi
M. Sig. Dose ʒss every four hours.

℞. Antipyrin.....3ii
Tinct. cascarillæ
Tinct. card. comp.
Glycerini, āā.....ʒss
Aquæ ad.....ʒvi
M. Sig. Dose ʒss every four hours.

TO RELIEVE NEURALGIA OF PHTHISICAL PATIENTS.

Capitan prescribes the following ointment. A very small quantity is lightly applied, and the part covered with some impermeable material and absorbent cotton. The application

must be discontinued as soon as the skin becomes even slightly reddened:

℞ Guaiacol
Methyl salicylatis aa .....gr. lxxx
Ext. belladonnæ.....gr. iiiss
Ext. opii .....gr. iv
Vaselini
Lanolini, āā.....ʒss
M. Sig. External use.

In very acute cases, menthol (15 grains), antipyrin (30 to 40 grains), or potassium bromid (80 grains) may be added.—*Louisville Monthly Jour. of Med. and Surg.*

Orchitis.

℞ Hydrargyri chlor. mitis.....gr. iii
Pulv. ipecac.....gr. x
M. Sig. Take at once.
℞ Hydrargyri ammoniat.....ʒi
Cerati simp.....ʒi
M. ft. ungt. Sig. Apply as directed. —*McElroy.*
℞ Ammon. muriatis.....ʒii
Spir. vin. rect.
Aquæ, āā.....ʒii
M. Sig. Use as a lotion.
℞ Morphin sulphatis.....gr. viii
Hydrarg. oleatis (10 per cent.).....ʒi

Treatment of Congestion of the Liver.

Monin (*Indépendence Médicale*) gives the following formulæ:

1. ℞ Sod. bicarb.
Sod. sulph., āā.....parts 6
Sod. phos.....parts 4
Sod. benzoate.....parts 2
M. Sig. A teaspoonful in half a glass of warm water, to be taken daily.

2. ℞ Powd. ignatia
Powd. squills, āā.....gr. 1½
Spartein sulph.
Amorph. quassia, āā.....gr. ¾
Theobromin .....gr. 3¾
M. Sig. Two such cachets to be taken daily.

3. ℞ Glycerin .....parts 200
Tinct. of boldo.....parts 100
Lactic acid.....parts 15
M. Sig. A teaspoonful in half a glass of water, to be taken after each meal.—*N. Y. Med. Jour.*

Quinin Sulphate in Complete Abortion.

Schwab (*Rev. Med. Chir. des Mal. des Femmes*), points out that obstetricians are not agreed as to the best treatment of incomplete abortion, some leaving matters alone unless hemorrhage or sepsis appear, others proceeding at once to the clearing out of the uterus with finger or curette. He is of the opinion that, save in cases in which the medical men can keep the patient under constant supervision, in which antiseptic precautions have been carried out since the commencement of the abortion and in which the os is still closed, the uterus ought to be emptied at once. He admits, however, that the curette has its dangers, and that ergot is inconvenient, so he recommends quinin sulphate. He has used it with success in seven cases of incomplete abortion. It is quite safe; it does not set up a tetanic condition of the uterine muscle; it may be given in two doses of eight grains at an interval of ten minutes, and it usually causes emptying of the uterus in about four and a half hours.—*The Times Register.*

Palatable Quinin Mixture for Children.

Dr. W. J. Greanelle gives the details for the preparation of such a mixture which will be readily taken by children. It is designed as a tonic and malarial prophylactic for children living in malarious sections. It will serve for active medication in acute cases of malarial disease of three years or younger by giving the dose at hourly intervals:

℞ Quininæ hydrochlor.....gr. v-x
Alcoholis 3i
℞ Ol. cinnamomi
Ol. anisi āā.....m. xxx-xl
Magnesiæ, q. s.
Aquæ .....ʒi
M. Let stand for some hours; filter.
Mix one and two and add:
Syr. simp.....ʒiii
Carmin or cochineal sol.....m. v.
Sig. One or two drams as directed.

Saccharin in small quantity helps to disguise the larger dose of quinin. Fowler's solution may be added if indicated, or sodium bromid for children made irritable by quinin.—*Med. Seminary.*

Treatment of Influenza.

Dr. Bartholow writes that his practice is to administer at the beginning of the local inflammation, 1/6 of a grain (adult dose) of one of the salts of pilocarpin. Pilocarpin sets up a brief stage of dryness immediately followed by increased secretion and presently the mucous glands, the salivary and cutaneous sweat-glands pour forth an abundant secretion. A sufficient dose of pilocarpin, administered at the right time, will often abort an acute catarrh or common cold. One dose should be given about two or three hours before retiring for the night so that the process of salivation and sweating is ended before sleep begins.

On the second day duboisin should be given, from 1/300 to 1/200 of a grain, for it is not desirable to induce its full physiologic effect. This quantity given once or twice in twenty-four hours will cause some dryness of the throat and nasal and faucial mucous membrane and slight dilatation of the pupil. It is important to maintain only a moderate degree of impression by duboisin; beyond that the result will be disagreeable without contributing anything to the curative action.—*Med. Summary.*

Medicolegal.

What Constitutes an Insane Delusion.—In ordinary language, a person is said to be under a delusion who entertains a false belief or opinion which he has been led to form by reason of some deception or fraud. But, the Supreme Court of California goes on to say, In re Scott's Estate, it is not every false or unfounded opinion which is in legal phraseology a delusion, nor is every delusion an insane delusion. If the belief or opinion has no basis in reason or probability and is without any evidence of its support, but exists without any process of reasoning, or is the spontaneous offspring of a perverted imagination, and is adhered to against all evidence and argument, the delusion may be truly called insane. But if there is any evidence, however slight or inconclusive, which might have a tendency to create the belief, it can not be said to be a delusion. One can not be said to act under an insane delusion if his condition of mind results from a belief or inference, however irrational or unfounded, drawn from facts which are shown to exist. A suspicion which rests upon evidence can not be held to be a delusion. A suspicion which has no evidence to support it is only an unsettled condition of the mind indicating doubt or mistrust, and does not constitute a delusion unless it shall develop into a fixed conviction of the existence of the fact suspected. In determining whether there was in a given case this fixed belief or conviction, the nature and temperament of the person, the circumstances under which he made the statements alleged to show an insane delusion, the habits of his life and association with others and also his conduct toward the relative or other person concerning whom they were made, and the nature of the intercourse maintained with the latter during the period within which they were made, it would seem, should be considered.

Proof of Sanity by Letters.—The Supreme Court of Indiana says, in Blume vs. State, that written communications, as well as oral conversations may afford evidence of the soundness or unsoundness of the mind of the writer, and may constitute a sufficient basis for the opinion of a skilled physician or alienist upon that subject. Here, in a homicide case, some twelve letters, extending in time over about eleven months and covering at least a portion of the period during which it

was claimed that the accused was of unsound mind, were read in evidence and submitted to the examination of a physician as an expert witness for the purpose of obtaining his opinion upon the question of the sanity of the accused at the time of the homicide and shortly before that occurrence. In this, and in permitting the witness, after such examination, to give his opinion as to the sanity of the writer, the court finds no error. The witness, who, as the court says, showed himself thoroughly competent, described the characteristics of the written compositions of the insane, and called attention to the absence of these peculiarities in the letters in question. And, upon the basis of the coherency and consistency of these letters, the omission of everything fantastic or absurd, their apparent adherence to the facts of the situation of the writer, the quality and regularity of the handwriting, and other features pointed out by the witness, he expressed the opinion that at the time they were written the writer was of sound mind. That this evidence was competent, the supreme court declares that it entertains no doubt, the foundation on which the opinion rested having been fully made known to the jury, and the latter having had the means of estimating its weight and value. The objection that there were other letters in the possession of the state, written by the accused, and that all should be read or none, it says was not deserving of serious consideration. The state, it holds, had the right to introduce such of the letters as it deemed necessary, and to withhold all others in its possession.

Assault and Battery in "Magnetic" Treatment.—The Supreme Court of Wisconsin has affirmed in Bartell vs. State, a conviction of assault and battery, charged of a man who claimed to be a magnetic healer in the regular practice of his profession. He treated a young girl about 18 years of age, the person upon whom the offense was committed, at her request and with the sanction of her father. She was afflicted with some nervous trouble, and was ignorant of what was necessary on her part in receiving the massage treatment, which was the accused's method of operating. He went into a room alone with her, caused her to remove all of her clothing and then, while her naked body was wholly exposed to his view, he gave her a massage treatment lasting some fifteen minutes. The evidence also tended to show that after the treatment he took some indecent liberties with her. After stating the facts, the supreme court declares that the law relating to physical violations of the persons of females accomplished by such a species of fraud or imposition as may be exercised by a person under the pretense of necessity or authority, where the violator, because of his position, has exceptional opportunities for thus imposing upon his victim, is well settled and is not liable to be too often or too rigorously enforced. The jury was told, in substance, that if the accused treated his patient in good faith, for the purpose of curing the disease with which she was supposed to be afflicted, and in good faith caused her to expose her body to his view for the purposes of such treatment, his conduct did not constitute the offense of assault and battery; but if on the other hand, he needlessly caused such patient to expose her person to his view for his evil purposes, and she submitted because of her ignorance, and that under such circumstances and for such purpose he secured the opportunity of laying his hands upon her body, he was guilty of the offense of assault and battery. In such charge, the supreme court holds, there was no error. Nor does it consider that there was error in excluding evidence as to the accused having cured a person, by his method of treatment, afflicted with rheumatism, the jury having been distinctly instructed that whether he possessed the power he supposed or pretended he possessed was not a subject for its consideration, the only question for the jury to decide being whether, in the manner he proceeded to treat his patient on the occasion in question, he acted in good faith, or because of the manner he administered treatment to the patient he needlessly caused her to submit her body to him for the gratification of his evil desires. To this the supreme court adds that the question was, as in substance stated by the trial judge, whether he so violated rules of propriety by needlessly causing his patient to submit herself to him, pretending, and causing her to believe, that such submission was a necessary incident of the treatment for curative purposes which she solicited at his hands, that his conduct assumed the character of a trespass on her person. Two doctors were allowed to testify as experts on the part of the state regarding whether it is reasonably necessary, in giving the massage treatment to a woman, to require her to expose her person to the view of the operator and whether it is customary where the operator is a man. The witnesses testified that they, as physicians, were familiar with the massage treatment, the methods employed in giving it, and the reasonable requirements on the part of the patient in order to receive such treatment. That, the supreme court holds, sufficiently demonstrated that the witnesses possessed special knowledge of the subject upon which they were allowed to testify, and were competent to testify thereon as experts.

Employers Not Liable for Doctors' Bills.—An employee in a bank, store, or shop, or upon a farm, may become suddenly very ill, or in some way seriously injured so that some foreman or other employee might properly deem immediate medical attendance necessary and, in the absence of the employer, summon a physician. Is the employer liable? The Supreme Court of Michigan says, in the case of Holmes vs. McAllister, that it was cited to no authority which so holds. To this it adds that it is doubtful whether such an employer would be liable if he himself sent for the physician to attend one of his employees, though the authoritative force of this statement is taken away by the remark that it was unnecessary upon this point to express an opinion in this case. But, be that as it may, the court declares that it does not hesitate to hold that in those avocations of life unaccompanied by dangers an employer is not liable for the services of a physician summoned by his manager or foreman or other servant to attend an employee in a case of sudden illness or injury, whatever his moral obligation may be. The case directly before the court was one of a girl having her hand seriously injured while working in a laundry. The forewoman sent a boy for the doctor, not designating any particular one. The one called immediately responded, dressed the wound and treated the girl, first at her home and then at his office, until the wound was healed. Thereafter he sued the girl's employers for the amount of his bill, and recovered a verdict for $50. But even judgment for that amount the supreme court will not permit to stand. There being no evidence in this case that employment in a laundry is accompanied by any unusual dangers, it applies to it the rules stated, rather than those which have been held to apply to cases of injury to railway employees and others engaged in what are deemed extrahazardous occupations. It holds that the forewoman of the laundry had no power to bind the employers by sending for a physician to attend the injured employee. It also takes into account that he never informed the employers that he was treating her, or that he expected them to pay him, or presented a bill, until he had ceased to treat her. Nor does the court see any evidence of ratification in the testimony of the husband of the woman with whom the girl lived that he went to see one of the employers and asked him to help her, which he declined to do, stating, however, that he would pay the doctor's bill; or in the testimony of one of the doctor's attorneys that he had called upon one of the employers to try to collect the bill and the man told him that the calling of the doctor was all right—was something that he would have done himself, had he been there in the laundry at the time, and that he was willing to pay for the first visit, whatever that might be worth, though he didn't think that he ought to pay the entire bill. Moreover, not only does the court hold that, as already shown, the employers were not originally liable, and that there was no evidence of ratification, but it declares that the language of these two witnesses imported no more than a promise to pay the debt of another, which is void under the statute of frauds requiring such a promise to be in writing. And even more emphatically than it holds that the doctor could not collect for his own services, does the court declare that he could not recover for the services of the two physicians whom he called in, unbeknown to the girl's employers, one for advice, and the other to assist him in an operation.

Association News.

AMERICAN MEDICAL ASSOCIATION.

Fifty-first annual meeting, held at Atlantic City, N. J., June 5-8, 1900.

Official Minutes of the General Sessions.

JUNE 5—FIRST GENERAL SESSION.

Of the vice-presidents and ex-presidents of the Association there were seated on the platform Drs. Henry O. Marcy, E. D. Ferguson, Nicholas Senn, Joseph M. Mathews, W. D. Middleton, Donald Maclean and Charles A. Wheaton.

The Association was called to order at 10:20 a.m., by the president, Dr. W. W. Keen, Philadelphia.

Prayer was offered by the Rev. Frederick J. Stanley.

Dr. J. F. Marchand, Ohio, on behalf of the citizens of Canton, presented to President Keen the insignia of authority and of power, in the form of a gavel made from the oak connected with President McKinley's residence.

The gavel was accepted by President Keen in a brief, but befitting speech.

The acting-governor of New Jersey, Wm. M. Johnson, was then introduced, and delivered the following:

ADDRESS OF WELCOME.

You have already been made aware of the fact that the governor of New Jersey is absent, and that you are to be addressed by the acting-governor of this commonwealth. When I assign as the reason of Governor Voorhees' absence that he is "half seas-over" I mean no disrespect to his excellency, who is my valued friend, and whose personal habits are unexceptionable. It was his purpose to be present to-day to offer his greeting to the members of this Association, but he is across the seas on the advice of his doctor, for here as elsewhere, there is always one higher in authority than the chief executive, and that is the family physician. If that physician is a member of this honorable body, as I have no doubt he is, it may be a serious question whether his action in banishing the governor at this time does not require investigation at your hands. The constitution of New Jersey provides that in case of absence from the state of the governor, the powers, duties and emoluments of the office shall devolve on the president of the senate, who thereby becomes the acting-governor. A careful investigation of our statutes to ascertain the duties of the governor, fails to disclose among those duties the obligation or privilege of addressing the members of this magnificent association. I therefore have concluded that this great honor must be deemed one of the "emoluments" of the office devolving on me by the constitutional provision already mentioned. I certainly esteem it a high privilege and a distinguished honor to be permitted to welcome you to-day, and only regret that you are not to have the opportunity to meet and hear that most charming man and successful governor, Foster M. Voorhees.

The hospitality of Atlantic City is proverbial. Being the greatest watering-place in America, if not in the world, it is accustomed to entertain most royally, and is never happier than when entertaining those, who, like yourselves, by virtue of their intellectual, personal or representative character, occupy positions of usefulness or of honor.

But I am here to greet you in the name of the people of New Jersey, and in their behalf to extend a most cordial welcome. I thank you for the honor done the state by the selection of this place for your annual meeting, and desire to express the wish that you may have an agreeable and successful session of this great representative Association.

In case there should be a marked improvement in the condition and health of your patients while you are enjoying your vacation here, I trust it may not be charged solely to your absence from home.

We are justly proud of the fact that the first medical society in America was established in this state. In the year 1766, while New Jersey was still a province, a permanent organization was formed by some of the leading physicians of the colony, for the advancement of the profession, on a basis which was most honorable in its aims and in the high ethical purposes of its founders. I understand that the original book of minutes of this association is still in the possession of the Medical Society of New Jersey, in a good state of preservation. Its articles of association would prove a model for similar societies at the present day. It is a matter of surprise to me to learn, as I lately have, that so many of these associations formed by medical men for mutual benefit and the improvement of the profession, trace their history back to the early years of the century, and that several, like the medical society of this state, go back far beyond the limit of the one hundred years. (Applause.)

Even in those early days American medicine was distinguished by its high ideals and its desire to make the general fund of professional knowledge available to all who desired to enjoy its benefit.

It seems to me that in no department of human activity is there to be found a more unselfish interest in a common cause, than in the noble profession to which you have devoted your lives and talents. It manifests itself in a willingness to contribute for the good of the profession whatever of value has been learned by experience or investigation. The results of most wearisome labors become at once common property. Every member feels that he owes duties to the profession, and is bound to give as well as to receive honor and help. How much of this spirit is due to the influence of this and kindred societies it is perhaps impossible to estimate, but it must be that these societies, founded as they were with such lofty standards, have done much to stimulate and develop a high conception of the duties and obligations of the profession, and to foster a noble ambition to reach the highest attainments in the learning and practice of medicine. It is inspiring to note the efforts of its members to advance the cause of medical science for the benefit of their fellow men.

The triumphs of medicine have kept pace with the progress of the mighty century now fast drawing to a close. I would not assume in this presence to recount the marvelous progress of medical science and practice, but in no department of human endeavor, in this brilliant epoch in the world's history, have there been greater gains and more illustrious achievements than in the domain of your beneficient profession. These achievements rank in importance and value with the discovery and adaptation of steam and electricity with all their dazzling results. The telegraph, the telephone, the electric light and other varied forms of electrical development, are the products of the century now closing, but of equal rank and importance are those great discoveries of medicine, which have in the same century revolutionized the practice of the profession. Every intelligent layman knows how the use of anesthetics has made surgery humane instead of barbarous, and what the modern discovery of surgical cleanliness and antiseptic treatment has done to preserve human life. He knows something of the enormous value derived from the use of the microscope and other instruments of precision, the achievements in the science of chemistry and in the new learning of biology, and especially in the domain of bacteriology. He has heard of the marvelous and almost incredible skill of daring operators and specialists. An ordinary student of affairs needs no medical training to see that a rational system of diagnosis and treatment of disease, based on substantial scientific grounds, together with an intelligent appreciation of the causes of sickness as something to be warded off and prevented if possible, are characteristics of the medical practice of the present day, in marked contrast to the empiricism of earlier years. But the advance of medical science has not served to efface from its practitioners the principles of philanthropy and charity which are so prominent in all the history of the profession. In the original constitution of the Medical Society of New Jersey, adopted in 1766, already referred to, it was among other things declared "that as we have separated ourselves to an office of benevolence and charity, we will always most readily and cheerfully when applied to, assist, gratis, by all means in our power the distressed poor and indigent in our respective neighborhoods." The modern physician has not departed from the principles thus promulgated. Few, indeed, realize the extent and value of the services rendered by a busy practitioner to those from whom he can expect no pecuniary fee or reward, oftentimes not even the reward of common gratitude for time and skill most generously and successfully bestowed. There is, I am sure, no class of men who freely give so much of faithful service for the benefit of others, as the men of your profession. Private philanthrophy may found and support hospitals, but who can measure the value of the professional services cheerfully rendered to such hospitals all over our land by the hundreds of physicians of the highest order of talent, without regard to personal inconvenience and sacrifice? (Applause.)

This magnificent association, the representative of all that is best and most progressive in the greatest school of medicine in America, should have a powerful influence in advancing the general interest of the profession. I bespeak for you a most harmonious and successful meeting here.

I trust, however, that you will not think New Jersey is all scrub-oak and pine-barrens, salt meadows and sand dunes. We

have within our boundaries a country most diversified and beautiful. On the north, we are walled in by the magnificent rocks of the Palisades of the Hudson, whose preservation has lately been the subject of legislative action. The Highlands of New Jersey and all the sections of the western and central parts of the state are picturesque and attractive, a fertile soil makes it a garden spot for the two great cities on our borders, a mild and salubrious climate causes a residence here to be delightful and healthful.

This magnificent stretch of sand extending for a hundred miles along our eastern coast gives to countless thousands a chance to breathe the invigorating and life-giving ocean breezes. To these breezes we welcome you. Drink deep of the ozone which is borne in upon you by favoring winds from the bosom of the broad Atlantic! From these breezes may you gain health and vigor; from this mighty ocean may you receive new inspirations which shall lead to high resolves, and may your deliberations here still further advance the interests of that noble profession of which you are such illustrious representatives.

I thank you again for the honor of your presence here and give you all a most hearty welcome and greeting. (Applause.)

MAYOR'S ADDRESS OF WELCOME.

Hon. F. P. Stoy, mayor of Atlantic City, was introduced and spoke as follows:

I deem it a great privilege to be present on this great occasion. It has been my duty the last few days to follow the reverend gentlemen on the programs of different delegations which have met here, all of which have been addressed. These gentlemen have done the praying, and I have extended the right hand of welcome. I am here this morning to bid you welcome, the greatest bunch of intellect that has met here for many days. (Laughter.) I want to say to you that the great gates of this city have closed behind you, and you are now surrounded by water. I am here on behalf of the people of Atlantic City to bid you a hearty and cordial welcome. I trust that your stay with us will be one of pleasure, as well as benefit to you. While we are extending a little beyond the limit, you must remember that you are at sea. We are outside of Atlantic City several hundred feet (laughter); nevertheless, I want to state to you that you have the freedom even of the outside. (Applause.) We are pleased to have you with us, and when it becomes your duty to select your next place of meeting we want you to remember that this city always extends a welcoming hand to any convention. Remember, that on such occasions as this the latch-string of Atlantic City hangs on the outside. I hope there will be nothing to mar your pleasure while here. I want to say, further, that should any of you stray from your wives, or be out late at night, and desire my assistance, the mayor of Atlantic City will remain at home during your presence here, and if you get into trouble (laughter), the mayor will be in trouble with you. I trust that this meeting will be a grand success. Ladies and gentlemen, we will be glad to meet you again. (Applause.)

An address was also made by Dr. T. S. K. Reed.

At this juncture the first vice-president, Dr. Chas. A. Wheaton, was called to the chair.

REPORT OF COMMITTEE ON ARRANGEMENTS.

Dr. Philip Marvel, Atlantic City, reported as chairman of the Committee of Arrangements. He called attention to the official program for the order of business, entertainments, places of meetings of sections, committees, etc.

REPORT OF GENERAL BUSINESS COMMITTEE.

The next thing in order was the report of the General Business Committee, which was read by Dr. Bulkley, the acting secretary, as follows:

The General Business Committee met for work yesterday afternoon, thirteen members being present.

The committee would call the attention of the Association to the fact that the order given last year in regard to abstracts of papers had been imperfectly carried out, as of the 492 papers on the program, only 231 had abstracts presented, and that the secretary of the Association had stated that many had been sent in very late, instead of thirty days before, as provided by the resolution of the Association.

In this connection the committee desires to call attention to the fact that too large a number of papers has often been secured, and that as suggested last year not more than thirty or forty can be properly considered during the six possible meetings of the Sections. At one meeting, in Philadelphia, four years ago, no less than 93 papers were printed on the program of the Section of Practice of Medicine, and often over 80 have appeared on different programs; a total of 2261 titles have been printed during the past four years. To facilitate the understanding of the work of the Sections, the committee would recommend for adoption the following:

Resolved, That the members of the Executive Committee of each Section meet the newly-elected officers of each Section on Thursday morning for the purpose of organizing the work for the ensuing year. Carried.

NUMBER OF PAPERS ON THE PROGRAMS OF SECTIONS DURING THE PAST FOUR YEARS.

	Philadelphia. 1897	Denver. 1898	Columbus. 1899	Atlantic City 1900	Total
Practice of Medicine	93	45	83	59	280
Surgery and Anatomy	46	71	72	55	244
Obstetrics and Diseases of Women	49	57	69	56	231
Opthalmology	70	56	58	40	224
Laryngology and Otology	82	38	47	49	216
Diseases of Children	53	62	37	45	197
Materia Medica, Pharmacy and Therapeutics	28	81	59	48	216
Physiology and Dietetics	37	43	32	26	138
Neurology and Medical Jurisprudence	51	89	43	44	227
Cutaneous Medicine and Surgery	23	24	21	17	85
State Medicine	46	33	26	11	116
Stomatology	16	16	14	23	69
Pathology (provisional section)	..	..	..	18	18
	594	615	561	491	2261

	Papers Presented.	Papers Abstracted.	Not Abst.
1. Practice of Medicine	60	47	13
2. Obstetrics	56	41	15
3. Surgery and Anatomy	55	..	55
4. State Medicine	11	1	10
5. Ophthalmology	40	30	10
6. Diseases of Children	45	28	17
7. Stomatology	23	..	23
8. Neurology and Medical Jurisprudence	44	25	19
9. Cutaneous Medicine and Surgery	17	1	16
10. Laryngology and Otology	49	23	26
11. Materia Medica, etc	48	23	25
12. Physiology and Dietetics	26	..	26
13. Pathology	18	12	6
	492	231	261

The committee nominates Dr. Edward Jackson, Denver, Colo., to serve on the committee on the Association prize essay, in place of Dr. Huntington, Sacramento, Cal., for the coming year. Recommendation adopted.

On account of the confusion which has existed in regard to the name of the committee, it would ask the Association to fix its name as the "General Executive Committee" to correspond with the name already given to the separate executive committees of the Sections of which it is composed. Adopted.

L. DUNCAN BULKLEY, M.D.
Acting Secretary.

The report was considered section by section, and the resolutions recommended by the committee were adopted.

President Keen then delivered his address, which was punctuated with applause throughout its delivery. (Referred to Executive Committee.)

Dr. Charles A. L. Reed, Cincinnati, moved that a vote of thanks be extended to the president for his able and very instructive address. Seconded and unanimously carried.

REPORT OF TREASURER.

The treasurer, Dr. Henry P. Newman, Chicago, read his report, which was referred to the Board of Trustees.

ANNUAL REPORT OF THE TREASURER OF THE AMERICAN MEDICAL ASSOCIATION FOR THE FISCAL YEAR ENDED DEC. 31, 1899.

In presenting my sixth annual report as treasurer, I congratulate the American Medical Association upon a continuance of her development in the most satisfactory directions.

There has been a steady increase in membership and a marked growth of the sentiment of individual interest and responsibility. This is shown in the promptness with which dues are now paid early in the year. For instance, in January, 1900, we received $10,215.00, whereas in 1895, in January and February together, our receipts amounted to but $1,711.00. For the entire year ended Dec. 31, 1899, our membership receipts were $38,965.00, being $15,593.00 in excess of those of five years ago.

The cash in hand January 1, 1900, was $13,556.36.

This, with the Indianapolis loan of $3,000.00, and government bonds $10,812.50, purchased during the year, makes our total assets at the close of the fiscal year, Dec. 31, 1899, $27,368.86, exclusive of the valuable JOURNAL plant which, being under the efficient management of the secretary, Dr. Simmons, and the Trustees, is accounted for in their report.

HENRY P. NEWMAN, IN ACCOUNT WITH THE AMERICAN MEDICAL ASSOCIATION.

RECEIPTS.

1899.				Dr.
Jan.	1,	To cash,	balance on hand	$18,729.95
June	10,	" "	Registration fees, Columbus meeting	6,125.00
Oct.	25,	" "	Interest on Indianapolis loan	179.80
Dec.	30,	" "	Membership dues for the year, not including registration fees of Columbus meeting	32,840.00
		Total		$57,874.75

DISBURSEMENTS.

1899.				
March	9,	By cash,	Dr. U. O. B. Wingate, expenses as Chairman of Committee on Public Health	$ 49.62
"	21,	" "	U. S. Government war bonds	10,812.50
April	14,	" "	Special R. R. Agent, Columbus meeting	23.00
"	18	" "	R. C. Shultz, stenographic report, Section on Practice of Medicine, Philadelphia meeting	80.00
May	9,	" "	Plate for foreign advertisement	14.00
"	11,	" "	Safety deposit vaults, box rent	10.00
"	29,	" "	Index book for Secretary	12.00
June	8,	" "	Expenses of Trustees, attending special and annual meeting in Chicago and the annual meeting at Columbus	1,330.78
"	8,	" "	Dr. Wm. B. Atkinson, Secretary Honorarium, and expenses attending annual meeting at Columbus	432.98
"	13,	" "	Dr. Geo. H. Simmons, Edr. expenses attending Columbus meeting	48.40
"	13,	" "	Dr. H. P. Newman, Treas., expenses attending Columbus meeting	46.00
"	13,	" "	Dr. C. M. Taylor, Chairman Regr. Committee, expenses of registration at Columbus meeting	297.30
"	20,	" "	Premium on Treasurer's bond	100.00
"	20,	" "	Dr. L. Duncan Bulkley, stenographic report for Executive Committee at Columbus meeting	22.14
"	28,	" "	Wm. Whitford, stenographic report proceedings at Columbus meeting	60.00
"	28,	" "	Dr. H. O. Reik, stenographic report Section of Ophthalmology at Columbus meeting	120.00
"	28,	" "	Ira J. Williams, stenographic report Section Neurology and Medical Jurisprudence at Columbus meeting	120.00
"	28,	" "	Dr. B. G. Kolb, stenographic report Section on Cutaneous Medicine and Surgery at Columbus meeting	50.00
July	7,	" "	Dr. O. C. Ludlow, stenographic report Section on Diseases of Children at Columbus meeting	100.00
"	11,	" "	Dr. H. P. Newman, Treas. half-yearly Honorarium	500.00
"	11,	" "	Dr. E. F. Smith, stenographic report Section of Practice of Medicine, Columbus meeting	120.00
"	11,	" "	Sundries for Treas. office	54.82
"	11,	" "	Dr. F. E. Wessels, stenographic report Section of Surgery at Columbus meeting	120.00
"	25,	" "	Wm. Whitford, stenographic report transactions of General Session and Section of Obstetrics and Diseases of Women at Columbus meeting	230.00
"	25,	" "	2,000 copies Trustees' reports	9.50
"	25,	" "	Dues refunded for duplicate payments at Columbus meeting	55.00
Aug.	15,	" "	Dr. Geo. E. Malsbary, stenographic report Section on Laryngology at Columbus meeting	102.60
"	23,	" "	Carqueville Lith. Co. letter-heads for Association	94.35
"	23,	" "	Dr. Geo. H. Simmons, Edr., subscriptions to Journal received at Columbus meeting	350.00
Nov.	4,	" "	Dr. H. P. Newman, Treas., half-yearly Honorarium	500.00
"	16,	" "	Bank collection fees on drafts	53.40
Dec.	28,	" "	Postage for Treas. Office	400.00
"	28,	" "	Dr. Geo. H. Simmons, Edr. Journal, requisitions for the year	28,000.00
"	28,	" "	Balance on hand	13,556.36
		Total		$57,874.75

ASSETS JANUARY 1, 1900.

Loan	$ 3,000.00
U. S. Government Bonds	10,812.50
Cash on Hand	13,566.36
	$27,368.86

Respectfully submitted,
H. P. NEWMAN, Treasurer.

Audited and found correct.
Hawley, Jones & Co., Public Accountants.
Feb. 9, 1900.

REPORT OF SECRETARY.

The secretary, Dr. Geo. H. Simmons, Chicago, presented his report, which was referred to the General Executive Committee. It is as follows:

Pursuant to instructions adopted by resolution at the last meeting of this Association I had printed and sent to all the health boards of the country a copy of the preamble and resolutions in reference to smallpox and vaccination, which were adopted then. In attempting to carry out your instructions, I found that in several states there was no health board, and consequently it was impossible to do anything in those states, except to send to individuals who were known to be interested in health matters. In several states there is only one board of health, that is, the state board, whereas in others there is a board of health in every town in the state. In several instances, through the co-operation of the officers of the State Board of Health, it was an easy matter to get the required number distributed.

Believing that it would be advantageous and beneficial to place the Code of Ethics in the hands of the young physician as he starts out in his life-work, I wrote to every regular medical college in the country and asked its co-operation in distributing a copy of the Code of Ethics to each of their graduates. Without exception the offer to send these Codes free was accepted and very much appreciated. The result is, we have put into the hands of every graduate of eighty-one medical colleges a copy of the Code of Ethics. I am confident that the result will be beneficial to the profession at large in the future.

The following letter was received in November last:

Dr. Wm. B. Atkinson:
Secretary of the American Medical Association.
Philadelphia, Pa.

Dear Sir:—At the forty-seventh annual meeting of the American Pharmaceutical Association held at Put-in-Bay, O., Sept. 4-9, 1899, the following preamble and resolution were unanimously adopted, and the undersigned was instructed to transmit the same to you for presentation at the next meeting of your Association.

Yours very truly, CHAS. CASPARI, M.D.,
General Secretary.

WHEREAS, The Metric system of weights and measures is used exclusively in the United States Pharmacopeia, and is official in the pharmacopeias of nearly all nations; and

WHEREAS, It has become the almost universal system of weights and measures in scientific calculations; be it

Resolved, That the members of the American Pharmaceutical Association request the American Medical Association to use its influence with all colleges and schools of medicine recognized by them in the United States, to use exclusively the metric system in the instruction of students, beginning with the classes entering said colleges and schools in the college year 1901.

Action on this subject was taken by the Association, as recorded in Vol. xxx of the Transactions, p. 44, which is as follows:

Resolved, That the American Medical Association adopt the International metric system and will use it in its transactions.

Requests that those who present papers at its future meetings employ this system in their communications or reprints thereof.

Requests that the medical boards of the hospitals and dispensaries adopt the metric system in prescribing and recording cases; and that the faculties of the medical and pharmaceutical schools adopt it in their didactic, clinical, or dispensing departments.

I present also correspondence with the officers of the Inland Empire Clinical Society of Spokane, Wash., in which they ask that their society be recognized as an affiliated body with the American Medical Association. Accompanying these letters is a list of members of the Inland Empire Clinical Society, Spokane, Wash., Constitution of the Inland Empire Clinical Society and By-Laws of the same society; also a part of the Constitution and By-Laws of the Washington State Medical Society, annexed hereto.

I have received the following letter:

CINCINNATI, OHIO, June 2, 1900.

Dr. Geo. H. Simmons:
Secretary of the American Medical Association.

Dear Sir:—I have the honor to advise you that the third Pan-American Medical Congress will be held in the City of Havana, Cuba, Dec. 26, 27, 28 and 29, A.D., 1900, and you are earnestly requested to communicate the fact to the general session of the American Medical Association.

In view of the fact that the Pan-American Medical Congress had its origin in the American Medical Association, it is earnestly requested that the latter organization appoint official delegates to attend the meeting above designated.

I have the honor to be, very respectfully,

CHARLES A. L. REED,
Secretary of the International Executive Commission.

Applications have been received from members of the medical profession residing in Honolulu, Alaska, Cuba, the Philippine Islands: and sixteen members of a Honolulu medical society are subscribers to THE JOURNAL and ask to be admitted as members of the American Medical Association. I would suggest that arrangements be made whereby members of these acquired possessions may become members of the American Medical Association.

The membership of the Association is at the present time approximately 9074. Respectfully submitted,

GEORGE H. SIMMONS, Secretary.

PAN-AMERICAN MEDICAL CONGRESS.

Dr. Dudley S. Reynolds, Louisville, offered the following resolution, which was adopted.

Resolved, That the nominating committee be and is hereby instructed to present in its regular report the names of two members for each state, territory, the District of Columbia, and for the army, navy, and marine-hospital service to represent the American Medical Association in the capacity, respectively, of delegates and alternates at the Third Pan-American Medical Congress, to be held in Havana, Cuba, Dec. 26, 27, 28 and 29, A.D. 1900.

REPORT OF COMMITTEE ON DEPARTMENT OF PUBLIC HEALTH.

Dr. U. O. B. Wingate, Milwaukee, Wis., read the report of the Committee on Department of Public Health, as follows:

Your Committee on Department of Public Health desires at this time to submit a short report of progress.

Briefly speaking, the situation is as follows: The measure known as the "Spooner Bill," which has received the indorsement of this Association at its last two meetings, remains unchanged as to its provisions.

It was introduced in the Senate of the 56th, or present, Congress, by Senator Spooner of Wisconsin, and referred to the Committee on Public Health and National Quarantine, and in the House by Congressman Ray of New York, and referred to the Committee on Interstate and Foreign Commerce.

It has been an unfavorable session of Congress for such legislation, on account of the important and unusual questions to be considered, and also, on account of the close proximity to the next presidential election.

Nevertheless, much progress has been made by way of creating public sentiment, which is so essential in aiding such a movement.

Your committee has been assured by members of Congress who are advocating the bill that much more interest has been taken and much more information has been received by members of Congress concerning the importance of such legislation than ever before, and that it is only a question of time, if we continue in the work, when we will succeed in our endeavors.

Many organizations, both medical and business, have become interested, and are using their influence with their respective members of Congress in favor of the measure. The bill has now been twice formally indorsed by this Association, by the American Public Health Association, by the New York Academy of Medicine, by the New York State Medical Association, by the New York Board of Trade and Transportation, and by the New York Chamber of Commerce.

It has also received the indorsement of the conference of State and Provincial Boards of Health of North America, many state and local medical societies, also municipal and local boards of health. Its principal features were warmly indorsed at two large sanitary conventions nearly two years ago, which convened for the purpose of considering sanitary legislation for the future.

During the past year, the chairman of your committee has visited Washington several times, interviewed many members of Congress and appeared before the Senate committee. Much literature and many letters have been sent to members of Congress. At the last meeting of the Association the sum of $500 was voted for the use of the committee, and we have to report that the Board of Trustees has allowed $215 only, which is the sum expended during the year. Your committee believes that the future prospects for the creation of a national public health organization are mostly promising, and it strongly urges continued and persistent work along the lines begun.

Respectfully submitted,

U. O. B. WINGATE, M.D.,
Chairman Committee on Department of Public Health.

Dr. H. O. Walker, Detroit offered the following:

Resolved, That the Committee on Department of Public Health be continued and that it is hereby authorized to continue its work along the lines begun as indicated in its reports.

Resolved, That the Board of Trustees be and hereby is authorized and directed to allow the chairman of the Committee on Department of Public Health the sum of $400, to be used in defraying the actual expenses in the furtherance of this work.

The report and resolution were referred to the Board of Trustees.

REPORT OF COMMITTEE ON NATIONAL LEGISLATION.

Dr. H. L. E. Johnson, Washington, D. C., read the report of the Committee on National Legislation.

AMERICAN MEDICAL ASSOCIATION.

COMMITTEE ON NATIONAL LEGISLATION.

H. L. E. JOHNSON, Chairman, Washington, D. C.; WILLIAM H. WELCH, Baltimore, Md.; WILLIAM L. RODMAN, Philadelphia, Pa.

WASHINGTON, D. C., June 5, 1900.

TO THE PRESIDENT AND MEMBERS OF THE AMERICAN MEDICAL ASSOCIATION:

Gentlemen:—In behalf of your Committee on National Legislation we beg to report that your Honorable President, in accordance with the resolution of the American Medical Association, adopted at the last meeting, appointed the following members to constitute a Committee on National Legislation, H. L. E. Johnson, of Washington, D. C.; Wm. H. Welch, of Baltimore, Md.; and Wm. L. Rodman, of Philadelphia, Pa. This Committee met in Washington D. C., Nov. 10, 1899, and after full discussion prepared the following communication which was addressed to the secretary of each state medical society in affiliation with the American Medical Association, and the Surgeons-General of the Army and Navy and Marine-Hospital Service, and also published in THE JOURNAL.

WASHINGTON, D. C., Jan. 10, 1900.

My Dear Doctor:—At a regular meeting of the Committee on National Legislation of the AMERICAN MEDICAL ASSOCIATION, held Nov. 10, at Washington, D. C., I was directed to request you to have your State Medical Society appoint one delegate to represent your society at the general meeting of delegates to be called by the Committee to meet in Washington, D. C., some time in January or February next (exact date not yet determined) to act in accordance with the resolution adopted by the ASSOCIATION at the Columbus meeting on June 7, 1899, which reads as follows, viz.:

Resolved: That the special Committee on Legislation be authorized to invite, in the name of the AMERICAN MEDICAL ASSOCIATION, the Army Medical Service, the Navy Medical Service, the Marine-Hospital Service, and each State Society of legally qualified practitioners of medicine, to send one delegate each to a conference to be held at Washington, D. C., at such time as the Committee may determine; such conference to consider the medical and sanitary legislation now pending, and the members to report to their respective societies such action as in their judgment ought to be taken.

This Committee hereby requests you to have your society consider, and instruct your delegate to the conference on the following matters to be considered at this session of Congress: 1, Department of Public Health; 2, Publication of Index Medicus; 3, The Anti vivisection Bill; 4, Unification of Medical Practice Acts, and 5, Such other medical legislation of interest to your society, now pending or to be proposed during the present session. Please forward to me at your earliest opportunity, the name and address of your duly appointed delegate that I may give ample notice to him and you of the date of the proposed general conference, to be held in Washington, D. C., as provided for by the resolution of the AMERICAN MEDICAL ASSOCIATION herein quoted.

Very truly yours,
H. L. E. JOHNSON, M.D., Chairman.

In reply to the above communication, the following delegates were appointed to the conference: Surgeon-General Geo. M. Sternberg, U. S. A.: Surgeon-General Walter Wyman, U. S. Marine-Hospital Service: Gustavus Eliot, New Haven, Conn.; H. L. E. Johnson, District of Columbia; John Y. Porter, Jacksonville, Fla.; J. W. Pettit, Ottawa, Ill.; J. N. Hurty, Indianapolis, Ind.; Dudley S. Reynolds, Louisville, Ky.; William Osler, Baltimore, Md.; H. M. Bracken, St. Paul, Minn.; Frank J. Lutz, St. Louis, Mo.; Geo. H. Simmons, Nebraska; Geo. Evans Reading, Woodbury, N. J.; Robert S. Young, Concord, N. C.; L. B. Tuckerman, Cleveland, Ohio; L. Haynes Buckston, Oklahoma City, Okla.; John B. Roberts, Philadelphia; Gardner Swarts, Providence, R. I.; T. J. Tyner, Galveston, Texas (temporarily, Washington, D. C.); Henry B. Holton, Brattleboro, Vt.; W. P. Goff, Clarksburg, W. Va.; U. O. B. Wingate, Milwaukee, Wis.

The Medical Department of the United States Navy, and the medical societies of the following named states made no reply to the call of your Committee: Alabama, Arizona, Arkansas, California, Colorado, Delaware, Georgia, Idaho, Indian Territory, Kansas, Massachusetts, Michigan, Mississippi, Montana, Nevada, Oregon, South Carolina, South Dakota, Tennessee, Utah, Washington and Wyoming.

The medical societies of the following states responded but were unable to appoint a delegate to this conference for various

reasons, but principally because the state society would not meet until after the date of the meeting of the general conference, and they had no one in authority who could make such appointments *ad interim* (universal approval of the conference and its purposes was expressed): Iowa, Louisiana, Maine, New Hampshire, New Mexico, New York, North Dakota and Virginia.

Delegates from the following states, though appointed, did not register at the conference, and usually sent written excuses and regrets for their absence: Illinois, Indiana, Kentucky, Maryland, Missouri, North Carolina, Oklahoma, Rhode Island, and Vermont.

On April 7, 1900, the following call was officially sent to the secretaries of the state societies, and to duly appointed delegates.

WASHINGTON, D. C., April 7, 1900.

Dear Doctor:—The Committee on National Legislation of the American Medical Association at the Columbus meeting last, hereby requests you to come to Washington, D. C., to attend the meeting of the Committee to be called to order at 11 a.m., on May 1 and 2, 1900, at the Arlington Hotel. The especial subjects to be considered have been announced to you, and also published in THE JOURNAL of the Association. The Committee has decided on this date for the meeting in order that you may have the pleasure of attending the fifth triennial session of the Congress of American Physicians and Surgeons, which meets May 1-3.

You can secure accommodations at the Arlington Hotel at a rate of $4 and $5 a day (American plan), and we suggest that you write at once to Mr. Frank B. Bennett, manager, for your room, stating that you will attend the meeting of the National Legislative Committee of the American Medical Association, on the dates indicated. The work of the Committee will be greatly facilitated if you will kindly notify the chairman at once that you will be present at the meeting.

The Congress of Physicians and Surgeons has arranged with the railroad companies for a fare and a third on the certificate plan, and as you will attend the meeting of that Congress, you can avail yourself of the reduction in transportation rates.

Very truly yours,
H. L. E. JOHNSON, M.D., Chairman.

The following communication was received from the Committee of Arrangements of the Congress of American Physicians and Surgeons, extending the courtesy of visitors to the legislative delegates; subsequently waiving the registration fee.

WASHINGTON, D. C., April 18, 1900.

DR. H. L. E. JOHNSON, Chairman, Committee on National Legislation.

My Dear Doctor:—Having been informed that your Committee on National Legislation will be in session in this city at the time of the meeting of the Congress of American Physicians and Surgeons, I desire on the part of the Committee of Arrangements to extend to your Committee the courtesy of accrediting them as visitors to the Congress in accordance with its by-laws (see enclosed circular). Those who wish to accept this courtesy should call at the Bureau of Registration, Parlor 1, The Arlington, on arrival, and register, when they will also receive cards to the reception, cards to the "smoker" given by the Cosmos Club on the evening of May 1, and program of the meeting of the Congress.

Very truly yours,
A. R. SHAW, Chairman,
Com. of Arrang., Cong. of Am. Phys. and Surg.

TRANSACTIONS OF THE MEETING.

The first annual conference of the National Legislative Committee of the American Medical Association was called to order by the Chairman, Dr. H. L. E. Johnson, of Washington, D. C., at 11:20 a.m., at the Arlington Hotel, Washington, D. C., twelve members present. Dr. Johnson addressed the meeting and stated the purpose for which it was called. Dr. Wm. H. Welch, of Baltimore, moved that after a general discussion the meeting adjourn until the following day, Wednesday, at 5 p.m.. The motion was seconded by Dr. L. B. Tuckerman, of Ohio, and carried. Dr. Welch moved that if any member of a state society which had not sent a delegate be in the city, he be invited to take part in the deliberations of the Conference. The motion was seconded by Dr. Tuckerman, of Ohio, and carried. On motion of Dr. Welch, the Conference adjourned.

The second session of the conference was called to order by the Chairman, Dr. H. L. E. Johnson, Washington, D. C., Wednesday, May 2, at 5:10 p.m. There were present: Drs. U. O. B. Wingate, Wisconsin; W. F. Goff, West Virginia; L. B. Tuckerman, Ohio; Geo. Evans Reading, New Jersey; Gustavus Eliot, Connecticut; T. J. Tynes, Texas; H. M. Bracken, Minnesota; Walter Wyman, U. S. Marine-Hospital Service; Wm. H. Welch, Maryland; H. L. E. Johnson, District of Columbia; J. B. Roberts, Pennsylvania; Geo. H. Simmons, Nebraska; Geo. M. Sternberg, U. S. Army; Wm. L. Rodman, Pennsylvania; Henry Sewall, of Colorado, by invitation.

The Chairman addressed the meeting, stating its object, and suggested that the following subjects be discussed in order: 1. Department of Public Health. 2. Publication of the "Index Medicus." 3. The Pending Antivivisection Bill. 4. Unification of State and National Medical Practice Laws. 5. Other Medical Bills Pending in Congress.

General Sternberg, U. S. Army, spoke of the importance of the meeting and regretted that he had several appointments at this hour which would prevent his remaining throughout the session, and requested permission to speak at this time on the various subjects under consideration. Concerning the "Index Medicus," he did not deem it advisable to urge its further publication. There is not the necessity for it now that there was a few years ago, and many of the journals are publishing indexes on their own account. The index catalogue will be kept up, and the department is always ready and willing to place its books and work at the disposal of any one desiring assistance in any particular medical, literary line. Concerning the antivivisection bill, he said he regarded this measure as being practically dead at this session, although it might come up again at some subsequent one, and it behooved the Conference to be ready for it, and be constantly on guard. He thought the Chairman was in a position to be on the lookout for its revival, and when he deemed it necessary, he should call a general meeting or notify the state delegates to act.

Dr. H. L. E. Johnson, D. C., asked General Sternberg if it was advisable to secure an appropriation, as has been urged, for the distribution of the "Index Catalogue" to libraries throughout the country. General Sternberg replied that if any library desired the catalogue, he would have the department cut off individuals on the list in favor of such libraries, this having been done in several instances. He said the original edition was 15,000, but it had been reduced to 10,000, and that any library desiring it could have it furnished on receipt of application and approval by the department.

Dr. Johnson asked General Sternberg if he had anything to suggest on medical practice acts. General Sternberg replied that it was very desirable that uniformity and reciprocity in medical practice acts should be obtained, and that a clause should be inserted in the law of each state looking to this end.

Dr. Tuckerman, Ohio, read a portion of the Ohio medical law providing reciprocity.

Dr. Reading, New Jersey, stated that his state had reciprocity clauses.

Dr. Johnson, District of Columbia, stated that the medical practice law in the District of Columbia contained a reciprocity clause.

He also asked General Sternberg if he had any suggestions to make on any of the medical matters now pending in Congress, to which General Sternberg replied that he had indorsed three bills, viz.: One making provision for increase in the medical department of the army (H. R. 4483); one providing for appointment of assistant-surgeons of volunteers (S. 4274); and one for the relief of acting assistant-surgeons of the United States Army (S. 4200).

A BILL FOR AN INCREASE IN THE MEDICAL DEPARTMENT OF THE ARMY.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That there shall be added to the number of medical officers of the Army now authorized by law four assistant surgeons-general with the rank of colonel, ten deputy surgeons-general with the rank of lieutenant-colonel, thirty surgeons with the rank of major, and eighty assistant-surgeons with the rank of first lieutenant, who shall have the rank of captain at the expiration of five years' service, as now provided by law: *Provided,* That the original vacancies created by this Act in the grade of colonel, lieutenant-colonel, and major shall be filled by seniority promotion in accordance with established laws and regulations.

Sec. 2.—That hereafter candidates for appointment in the Medical Corps of the Army who pass a medical examining board in compliance with existing regulations shall be appointed acting assistant-surgeons for a probationary period of six months. During this probationary period they shall attend the Army Medical School established at the Army Medical Museum in the city of Washington, and the faculty of the Army Medical School shall report to the Secretary of War at the end of the prescribed course of instruction upon the fitness and relative standing of the probationary candidates. Those who are recommended by the faculty may then be commissioned by the President to fill existing vacancies in the Medical Corps of the Army.

Sec. 3.—That acting assistant-surgeons appointed in accordance with the provisions of section two shall be paid one hundred dollars per month, and shall not be entitled to any allowances or to mileage in reporting for the prescribed course of instruction, or in returning to their homes if they are not recommended for a commission.

Sec. 4.—That the number of acting assistant-surgeons appointed in accordance with the provisions of section two shall not exceed the number of vacancies, existing or to result from retirements during the probationary period.

Sec. 5.—That candidates who have rendered satisfactory service as acting assistant-surgeons or as commissioned medical officers in the Volunteer Army of the United States for a period of six months or more shall be exempted from this period of probation, and may be commissioned at once if vacancies exist and they pass a satisfactory examination as to their physical, moral, and professional qualifications.

A BILL PROVIDING FOR THE APPOINTMENT OF ASSISTANT-SURGEONS OF VOLUNTEERS.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That "contract surgeons" who have rendered faithful and satisfactory service with the Army of the United States for a period of one year, and who

have passed a satisfactory examination as to their physical and professional qualifications, shall be commissioned by the President as assistant-surgeons of volunteers with the rank of first lieutenant, subject to honorable discharge from the service whenever their services are no longer required.

Sec. 2.—That at the end of two years' service as first lieutenants assistant-surgeons of volunteers, appointed in accordance with section one of ths Act, who have rendered faithful and satisfactory service, shall be commissioned by the President as assistant-surgeons of volunteers with the rank of captain, subject to honorable discharge from the service whenever their services are no longer required; and that they shall receive pay and allowances of a captain mounted.

A BILL FOR THE RELIEF OF ACTING ASSISTANT-SURGEONS OF THE UNITED STATES ARMY.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That on and after the passage of this Act acting assistant-surgeons in the Army of the United States shall have the same rights and privileges as regards leaves of absence as commissioned officers of the Army.

Sec. 2.—That acting assistant-surgeons in the Army of the United States who have been appointed since the first day of May, eighteen hundred and ninety-eight, who have been absent from duty, by proper authority, on account of sickness contracted in the service, shall be paid for the time of such absence at the rate per month specified in their contracts.

He further said he would be pleased to have the help and indorsement of the Conference in getting them passed, and suggested that the Committee consider the matter and give it all the help in its power. He made a motion to this end, which was seconded by Dr. Reading, of New Jersey.

Dr. Tuckerman, Ohio, suggested that there should be a copy of the bills furnished each state society's delegate, and that each member should write to his congressman stating the action of the state societies.

General Sternberg said that he would send a copy to each member.

Dr. Goff, West Virginia, requested that, inasmuch as many of the state societies would meet in the course of a few days, they be sent at once.

General Sternberg replied that he would do this.

Dr. Reading, New Jersey, moved that the Conference do all that it can for the two bills providing for contract surgeons, and the other bill of Dr. Sternberg's.

General Sternberg moved that a committee of five be appointed by the chairman to wait upon the congressional committee with the indorsement of this meeting and urge the immediate passage of the bills proposed. The motion was seconded by Dr. Reading, and carried.

Dr. Tuckerman, Ohio, suggested that a permanent committee should be appointed by the American Medical Association for this and similar purposes.

Dr. Johnson, District of Columbia, said that such a Committee had been provided for at the meeting last June.

At this juncture General Sternberg begged to be excused, and the business was taken up in its regular order.

DEPARTMENT OF PUBLIC HEALTH.

Dr. Wingate, Wisconsin, stated that he had nothing new to report, the matter was still pending in Congress, though Senator Spooner stated to him that he hoped to get it out of his committee this week. (S. 3433, Spooner.)

Dr. Simmons, Nebraska, said he had looked into the bill, but could not see the importance of it, and would like to know whether it is indorsed by the Association.

Dr. Tuckerman, Ohio, stated that there was a great need for unity of action between the national and state health authorities, and that the only way to secure it was to have a national health commission; that he questioned very much whether the country would be willing to turn the matter over to a commissioner who would use his office for purely party influence, incidently doing what he could for the public health; that owing to the constant change of administration there would necessarily result the constant change of health officers; that it took from ten to fifteen years of constant training to fit a man for such an office, and that when an officer is chosen, not for his ability but for the support he would bring to his party, his efficiency as health officer would be absolutely *nil.*

Dr. Roberts, Pennsylvania, requested information as to what were the duties of the United States Marine-Hospital Service, and what were the provisions of the Spooner health bill. He wished to hear from General Wyman in this connection.

Dr. Johnson, District of Columbia, suggested to Dr. Roberts that for the better understanding of the situation, it might be better for Dr. Wingate to explain the provisions of his bill, the so-called Spooner bill, and give some idea of its present status in Congress, and subsequently hear from General Wyman. The suggestion being accepted by Dr. Roberts, Dr. Wingate proceeded to explain his bill, which he said was approved at the Denver meeting of the American Medical Association; he also read an extract from the Columbus meeting, which he said also indorsed it. He stated that no two people wanted the same thing, one society demanding one thing, and another society demanding another; that Congress was perfectly willing to pass a bill of this character, but wanted to know first what was wanted by the doctors, and that there must be a uniformity in their demands. He said that this bill had received the largest support all over the country from both professional and business men; that there was no intention of working against the Marine-Hospital Service, but there is a feeling all over the country that there should be a department of public health devoted solely to that work and nothing else; that nobody could be found in Congress at present to draft such a bill, and the present bill was therefore the best that could be framed.

Surgeon-General Wyman said that he might have to give an official opinion later, hence it would not do for him to anticipate his views. He thought, however, some of the features of the bill were good, though he felt quite positive that the bill as presented had never been thoroughly understood or appreciated, there being a general idea that it helped the Marine-Hospital Service, while on the contrary it disrupts it. He believes that the Marine-Hospital Service, as it is, is a splendid foundation for whatever public health service might be placed upon it. He does not believe that a double-headed service would be advisable or practicable.

General Wyman then gave a detailed outline of the work of the Marine-Hospital Service, and cited many instances to show its ability to deal with questions of public health. He concluded by saying that he did not consider it necessary for the Committee to take any action, but to let the matter rest where it is.

Dr. Welch, Maryland, said he approved the Marine-Hospital Service, but hardly thought it the place for the establishment of a national sanitary department, though he would not want anything done to interfere with its work; also, it would be better to have a bureau to start with, instead of a cabinet officer, and this can not be accomplished at present.

Dr. Bracken, Minnesota, stated that he was not in sympathy with this bill or of creating a department of any such nature; that he upheld the Marine-Hospital Service because of its independence of politics, whereas the Spooner bill proposed a department which, as stated by the previous speaker (Dr. Tuckerman), would be changed with every change of administration; that he would approve of the making of the Marine-Hospital Service a national board of health.

Dr. Roberts, Pennsylvania, indorsed Dr. Bracken's views, and said it represented his view of the situation precisely.

Dr. Tuckerman, Ohio, stated that there was a new bill just introduced designed to protect the southern coast and strengthen the national quarantine service. It is H. R. 11139 and S. 4171.

A BILL AMENDING "AN ACT GRANTING ADDITIONAL QUARANTINE POWERS AND IMPOSING ADDITIONAL DUTIES UPON THE MARINE-HOSPITAL SERVICE," APPROVED FEB. 15, 1893.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That an Act granting additional quarantine powers and imposing additional duties upon the Marine-Hospital Service, approved February fifteenth, eighteen hundred and ninety-three, be amended and added to as follows.

That section six of said Act shall be amended to read as follows:

Sec. 6.—That on the arrival of an infected vessel at any port not provided with the proper facilities for treatment of the same, the Secretary may remand said vessel, at its own expense, to the nearest national or other quarantine station where accommodations and appliances are provided for the necessary disinfection and treatment of the vessel, passengers, and cargo; and after treatment of any infected vessel, or inspection of any vessel not infected, at a national quarantine station, and after certificate shall have been given by the United States quarantine officer at said station that the vessel, cargo, and passengers are each and all free from infectious disease or danger of conveying the same, said vessel shall be permitted to enter and admitted to entry at any port of the United States named within the certificate. But at any ports where sufficient quarantine provision has been made by State or local authorities, the Secretary of the Treasury may direct vessels bound for said ports to undergo quarantine at said State or local station."

That there shall be added the following sections:

Sec. 10.—National quarantine stations shall be conducted in accordance with the provisions of this Act, and the Supervising Surgeon-General, with the approval of the Secretary of the Treasury, is authorized to designate and mark the boundaries of the quarantine grounds and quarantine anchorages for vessels which are reserved for use at each United States quarantine station; and any vessel or officer of any vessel or other person trespassing or otherwise entering upon such grounds or anchorages in disregard of the quarantine rules and regulations, or without permission of the officer in charge of such station, shall be deemed guilty of a misdemeanor and subject to arrest, and, upon conviction thereof, be punished by a fine of not more than three hundred dollars or imprisonment for not more than one year, or both, in the discretion of the court. Any master or owner of any vessel or any person violating any provision of this Act, or any rule or regulation made in accordance with this Act, relating to inspection of vessels, or relating to the prevention of the introduction of contagious or infectious diseases, or any master, owner, or agent of any vessel making a false statement relative to the sanitary condition of said vessel or its contents, or as to the health of any passenger or person thereon,

shall be deemed guilty of a misdemeanor and subject to arrest, and upon conviction thereof be punished by a fine of not more than five hundred dollars or imprisonment for not more than one year, or both, in the discretion of the court.

Sec. 11.—That any port or place in the United States where the Secretary of the Treasury shall deem it necessary for the prevention of the introduction of contagious or infectious disease from a foreign port or place, incoming vessels, vehicles, or persons shall be inspected by a national quarantine officer; such officer shall be designated or appointed by the Secretary of the Treasury, on the recommendation of the Surgeon-General of the Marine-Hospital Service, and at any such port or place no vessel, vehicle, or person from any foreign port or place shall be admitted to entry or enter without a certificate of said officer that the United States quarantine regulations have been complied with. Any vessel sailing from any foreign port without the bill of health required by section two of this Act, and arriving within the limits of any collection district of the United States, and not entering or attempting to enter any port of the United States, shall be subject to such quarantine measures as shall be prescribed by regulations of the Secretary of the Treasury, and the cost of such measures shall be a lien on said vessel, to be recovered by proceedings in the proper district court of the United States, and in the manner set forth above as regards vessels from foreign ports without bills of health and entering any port of the United States.

Sec. 12.—That the medical officers of the United States duly clothed with authority to act as quarantine officers at any port or place within the United States, and when performing the said duties, are hereby authorized to take declarations and administer oaths in matters pertaining to the administration of the quarantine laws and regulations of the United States.

A BILL TO AMEND "AN ACT GRANTING ADDITIONAL QUARANTINE POWERS AND IMPOSING ADDITIONAL DUTIES UPON THE MARINE-HOSPITAL SERVICE," APPROVED FEB. 15, 1893.

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That there shall be added the following sections:

Sec. 10.—That national quarantine stations shall be conducted in acordance with the provisions of this Act, and the Supervising Surgeon-General, with the approval of the Secretary of the Treasury, is authorized to designate and mark the boundaries of the quarantine grounds and quarantine anchorages for vessels, which are reserved for use at each United States quarantine station; and any vessel or officer of any vessel or other person trespassing or otherwise entering upon such grounds or anchorages in disregard of the quarantine rules and regulations, or without permission of the officer in charge of such station, shall be deemed guilty of a misdemeanor and subject to arrest, and upon conviction thereof be punished by a fine of not more than three hundred dollars or imprisonment for not more than one year, or both, in the discretion of the court. Any master or owner of any vessel, or any person violating any provision of this Act or any rule or regulation made in accordance with this Act, relating to inspection of vessels or relating to the prevention of the introduction of contagious or infectious diseases, or any master, owner, or agent of any vessel making a false statement relative to the sanitary condition of said vessel or its contents or as to the health of any passenger or person thereon, shall be deemed guilty of a misdemeanor and subject to arrest, and upon conviction thereof be punished by a fine of not more than five hundred dollars or imprisonment for not more than one year, or both, in the discretion of the court.

Sec. 11.—That any port in the United States where the Secretary of the Treasury shall deem it necessary for the prevention of the introduction of contagious or infectious disease from a foreign port or place, that incoming vessels, vehicles, or persons shall be inspected by a national quarantine officer, such officer shall be designated or appointed by the Secretary of the Treasury, on recommendation of the Surgeon-General of the Marine-Hospital Service, and at any such port or place no vessel, vehicle, or person from any foreign port or place shall be admitted to entry or enter without a certificate of said officer that the United States quarantine regulations have been complied with. Any vessel sailing from any foreign port without the bill of health required by section two of this Act, and arriving within the limits of any collection district of the United States, and not entering or attemping to enter any port of the United States, shall be subject to such quarantine measures as shall be prescribed by regulations of the Secretary of the Treasury, and the cost of such measures shall be a lien on said vessel, to be recovered by proceedings in the proper district court of the United States and in the manner set forth above as regards vessels from foreign ports without bills of health and entering any port of the United States.

Sec. 12.—That the medical officers of the United States, duly clothed with authority to act as quarantine officers at any port or place within the United States, and when performing the said duties, are hereby authorized to take declarations and administer oaths in matters pertaining to the administration of the quarantine laws and regulations of the United States.

On request of Dr. Tuckerman, General Wyman explained the bills in detail.

Dr. Tuckerman, Ohio, moved that the bills be approved. Seconded by Dr. Bracken, and carried.

Dr. Tuckerman, Ohio, moved that the committee of five be instructed to present its approval to the congressional committees in connection with the army bills. Carried.

Dr. Tuckerman, Ohio, moved that it be recommended to the state societies that a standing committeee be appointed to consists of one member each from accredited medical societies.

Dr. Reading, New Jersey, questioned the advisability of admitting homeopathic physicians to such a conference, stating that they would come under the head of accredited societies.

Dr. Tuckerman explained his motion, and it was seconded by Dr. Goff.

Dr. Simmons, Nebraska, approved of such a committee, but stated that it must consist of men well informed on the subject in hand, who should come prepared to deal with each question and empowered to act as the representative of their state society.

Dr. Bracken, Minnesota, said he did not believe that at this time we should take any action for the homeopathic societies, though he is favorable to acting with them in this matter, as they are in sympathy with all public health movements.

Dr. Tuckerman, Ohio, by request, read his motion.

Dr. Welch, Maryland, moved to amend the motion so that all societies sending a delegate must be in affiliation with the American Medical Association. His motion was seconded.

Dr. Roberts, Pennsylvania, stated that he firmly approved of admitting the homeopathic physicians.

Dr. Goff, West Virginia, requested that the points of opposition be brought out.

Dr. Welch, Maryland, stated that he did not consider it wise, from a professional standpoint, to admit homeopaths.

Dr. Johnson, District of Columbia, stated that there was a clause in the Constitution of the American Medical Association covering that question.

Dr. Reading, New Jersey, stated that he believed in working with them, but that as a body he did not believe that we could ever get the American Medical Association to unite with the homeopaths.

Dr. Tuckerman, Ohio, desired to amend his resolution so as to include a representative from the Bureau of Animal Industry, and stated that he would not make a stand on the wording of the amendment, but he desired an expression of opinion from the general committee. He stated that the two main features of the amendment would be the addition of a member from the Bureau of Animal Industry, and limiting this to representatives from societies in affiliation with the American Medical Association. The amendments were agreed to, whereupon Dr. Tuckerman read the resolution as amended, and recommended that it be submitted to the American Medical Association at its meeting in June, 1900, for adoption.

RESOLVED, That the Committee on National Legislation shall consist of three members, one of whom shall be a resident of Washington, D. C., one of Baltimore and one of Philadelphia. It shall be the duty of this Committee to represent before Congress the wishes of this Association respecting pending medical and sanitary legislation. This Committee shall also invite to an annual conference to be held at Washington, D. C., one delegate each from the Army Medical Service, the Navy Medical Service, the Marine-Hospital Service, the Bureau of Animal Industry, and from each state society in affiliation with the American Medical Association: such conference to consider questions of national medical and sanitary legislation, and report to their respective bodies for action.

The resolution was seconded by Dr. Welch, Baltimore, and carried.

Dr. Tuckerman, Ohio, moved that this body recommend to the various state societies that they provide in their constitution for a standing committee on national legislation, and that they provide that one member of this shall represent their state at future conferences. The motion was seconded by Dr. Reading, and carried.

REVIVAL OF THE "INDEX MEDICUS.

Dr. Reading, New Jersey, moved that, after considering the remarks of Surgeon-General Sternberg on the matter of the publication of the "Index Medicus," this matter be laid on the table. The motion was seconded and carried.

ANTIVIVISECTION BILL.

Dr. Johnson, District of Columbia, said he thought the Committee should take a very positive and decided stand with respect to the antivivisection bill now pending in Congress, and specially known as S. 34. He stated that while a great deal had been done throughout the United States by the medical profession, to check or throw a damper on its passage, we as a body should denounce it, and recommend to Congress that it be not passed.

A BILL FOR THE FURTHER PREVENTION OF CRUELTY TO ANIMALS IN THE DISTRICT OF COLUMBIA.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That hereafter no person shall perform on a living vertebrate animal any experiment calculated to give pain to such animal, except subject to the restrictions hereinafter prescribed. Any person performing or taking part in performing any experiment calculated to give pain in contravention of this Act shall be guilty of an offense against this Act, and shall, if it be the first offense, be liable, at the discretion of the court by which he is tried, to a penalty not exceeding three hundred dollars, or to imprisonment for a period not exceeding six months.

Sec. 2.—That the following restrictions are imposed by this Act with respect to the performance on any living vertebrate animal of an experiment calculated to give pain to such animal; that is to say:

a. The experiment must be performed with a view to the advancement by new discovery of physiological knowledge or of knowledge which will be useful for saving or prolonging life or alleviating suffering; and

b. The experiment must be performed by a person holding such license from the Commissioners of the District of Columbia as in this Act mentioned, or by a duly authorized officer of the Government of the United States, or of the District of Columbia; and

c. The animal must, during the whole of the experiment, be completely under the influence of ether or chloroform sufficiently to prevent the animal from feeling pain, excepting only that in so-called inoculation experiments or tests of drugs or medicines, the animal need not be anesthetized nor killed afterwards, nor in tests of surgical procedure need animals be kept completely anesthetized during the process of recovery from the surgical operation. Otherwise than this the animal must be kept from pain during all experiments; and

d. The animal must, if the pain is likely to continue after the effect of the anesthetic has ceased, or if any serious injury has been inflicted on the animal, be killed before it recovers from the influence of the anesthetic which has been administered; and

e. No experiment shall be made upon any living creature, calculated to give pain to such creature, in any of the public schools of the District of Columbia; provided as follows, that is to say:

1. Experiments may be performed under the foregoing provisions as to the use of anesthetics by a person giving illustrations of lectures in medical schools, hospitals, or colleges, on such certificate being given, as in this Act hereafter mentioned, that the proposed experiments are absolutely necessary for the due instruction of the persons to whom such lectures are given, with a view to their acquiring physiological knowledge or knowledge which will be useful to them for saving or prolonging life or alleviating suffering; and

2. The substance known as urari or curare shall not, for the purposes of this Act, be deemed to be an anesthetic; and

3. Notwithstanding anything in this Act contained, no experiment calculated to give pain shall be performed on a dog or cat, except upon such certificate being given, as in this Act mentioned, stating, in addition to the statements hereinbefore required to be made in such certificate, that for reasons specified in the certificate the object of the experiment will be necessarily frustrated unless it is performed on an animal similar in constitution and habits to a cat or dog, and no other animal is available for such experiment; and an experiment calculated to give pain shall not be performed on any horse, ass, or mule, except on such certificate being given, as in this Act mentioned, that the object of the experiment will be necessarily frustrated unless it is performed on a horse, ass, or mule, and that no other animal is available for such purpose; and

4. Any exhibition to the general public, whether admission be on payment of money or gratuitous, of experiments on living animals calculated to give pain shall be illegal.

Any person performing or aiding in performing such experiment shall be deemed to be guilty of an offense against this Act, and shall, if it be the first offense, be liable to a penalty not exceeding one hundred and fifty dollars, and if it be the second or any subsequent offense, shall be liable, at the discretion of the court by which he is tried, to a penalty not exceeding six months; and any person publishing any notice of any such intended exhibition by advertisement in a newspaper, placard, or otherwise, shall be liable to a penalty not exceeding ten dollars.

A person punished for an offense under this section shall not for the same offense be punishable under any other section of this Act.

Sec. 3.—That the Commissioners of the District may insert, as a condition of granting any license, a provision in such license that the place in which any such experiment is to be performed by the licensee is to be registered in such manner as the said Commissioners may from time to time by any general or special order direct: *Provided*, That every place for the performance of experiments for the purpose of instruction shall be approved by the said Commissioners, and shall be registered in such manner as the said Commissioners may from time to time by any general or special order direct.

Sec. 4.—That the Commissioners of the District, upon application as hereinafter prescribed, may license any person whom they may think qualified to hold a license to perform experiments under this Act: *Provided only*, That a license shall not be granted to any person under the age of twenty-five years, unless he be a graduate from a medical college, duly authorized to practice medicine in the District of Columbia.

Sec. 5.—That the Commissioners of the District may direct any person performing experiments under this Act from time to time to make reports to them of the methods employed and the results of such experiments, in such form and with such details as the said Commissioners may require.

Sec. 6.—That the President of the United States shall cause all places where experiments on living vertebrate animals are carried on, in the District of Columbia, to be, from time to time, visited and inspected without previous notice for the purpose of securing compliance with the provisions of this Act; and to that end shall appoint four inspectors, who shall serve without compensation, and who shall have authority to visit and inspect the places aforesaid, and who shall report to the President of the United States from time to time the results of their observations therein, which shall be made public by him.

Sec. 7.—That any application for a license under this Act, and for a certificate to be given as in this Act mentioned must be signed by three physicians duly licensed to practice and actually engaged in practicing medicine in the District of Columbia, and also by a professor of physiology, medicine, anatomy, medical jurisprudence, materia medica, or surgery in the medical department of any duly established reliable school or college in the District of Columbia: *Provided*, That when any person applying for a certificate under this Act is himself one of the persons authorized to sign such certificate, the signature of some other of such persons shall be substituted for the signature of the applicant.

A certificate under this section may be given for such time or for such series of experiments as the persons signing the certificate may think expedient.

A copy of any certificate under this section shall be forwarded by the applicant to the Commissioners of the District, but shall not be available until one week after a copy has been so forwarded.

The Commissioners of the District may at any time disallow or suspend any certificate given under this section.

Sec. 8.—That the powers conferred by this act of granting a license or giving a certificate for the performance of an experiment on living animals may be exercised by an order in writing, under the hand of any judge of a court of record having criminal jurisdiction in the District, in a case where such judge is satisfied that it is essential for the purpose of justice in a criminal case to make such experiment.

Dr. Welch, Maryland, agreed with the remarks of the Chairman, and moved that the members of the Conference approve the resolution, which he would formally submit in writing, and that they send a copy to their individual state societies. Seconded by Dr. Eliot, Conn., and carried. The resolution as submitted in writing is as follows:

RESOLVED: That the National Legislative Conference, composed of delegates from the state medical societies of the United States, assembled in the City of Washington, on May 2, 1900, in response to the invitation of the American Medical Association, hereby most earnestly protests against the passage of Senate bill 34, generally known as the "antivivisection bill."

Experimentation on animals is absolutely essential to the progress of physiology and pathology and has conferred inestimable benefits on practical medicine and surgery. Not a single instance of the abuse of the practice of vivisection has been shown to have occurred in the District of Columbia, where the existing law permits only "properly conducted scientific experiments or investigations, which experiments shall be performed only under the authority of the faculty of some regularly incorporated medical college, university or scientific society." No further legislation on this subject is needed.

The antivivisection bill has been condemned with practical unanimity by the entire medical profession of this country and by numerous scientific societies, including the National Academy of Sciences. This bill, if enacted into law, would inflict the most serious injury upon the medical science and art. It leaves it entirely to the discretion of two laymen, making a majority of the commissioners of the District, whether any experimentations upon vertebrate animals shall be performed at all in the District of Columbia, save that conducted under severe restrictions by certain officers of the general government. The recent appointment as president of the District Commissioners, of a gentleman known to be hostile to experimentation upon animals indicates the perils to science and medicine of entrusting to these laymen the absolute control of this important method of scientific investigation. The bill in unmistakable terms absolutely prohibits many important and useful experiments; it provides for a system of inspection of the work of experimenters without provision that the official inspectors shall possess any special qualifications for their responsible and remarkable duties; it surrounds the entire practice of experimentation with unnecessary and vexatious restrictions, and is so framed as to enable the administrators of the law virtually to put a stop to experimentations, while nominally permitting it. Experience with similar although less restrictive and more intelligent legislation in Great Britain, has demonstrated the injury which it is sure to inflict upon scientific and practical medicine. We can not believe that the Congress of the United States will disregard the united voice of the medical profession in a matter vitally concerned with the interests and progress of medicine.

Seconded by Dr. Tuckerman, and carried.

UNIFICATION OF MEDICAL PRACTICE LAWS—STATE AND NATIONAL.

Dr. Eliot, Connecticut, suggested that this be left to the special committee of five to be appointed, to which had been referred the other matters previously considered.

Dr. Reading, New Jersey, moved that the efforts of the members of the Conference be directed through their several state societies to securing reciprocity in the various states not now so providing. The motion was seconded by Dr. Goff, West Virginia, and carried.

Dr. Tuckerman, Ohio, stated that as the regular business had been finished he would now bring up new business for discussion. He referred to the bill appropriating money for the investigation of pollution of the Potomac water. The bill is S. 359, for the investigation of pollution of water-supplies, and carries with it report No. 411, Calendar No. 427. The bill and report were submitted, and he moved its approval. Seconded and carried.

Dr. Goff, West Virginia, moved that this matter be now put in the hands of the special committee of five, which shall urge its immediate passage by Congress and personally wait on the proper committee. Seconded by Dr. Eliot, Connecticut, and carried.

A BILL FOR THE INVESTIGATION OF POLLUTION OF WATER-SUPPLIES.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the sum of three thousand dollars be, and is hereby, appropriated, out of

moneys not otherwise appropriated, to enable the Marine-Hospital Service, under the direction of the Secretary of the Treasury, to investigate the sources of contamination of rivers and other natural sources of water supply where the sanitary condition of the people of more than one State or Territory or the District of Columbia is affected or threatened to be affected by such pollution, and to report upon what legislation is necessary to remove or prevent such pollution: *Provided*, That the first investigation shall relate to the Potomac River.

Dr. Tuckerman, Ohio, moved that the same committee to be appointed should manage also another bill, providing for the inspection of immigrants at the port of embarkation, and that this bill should be indorsed by the committee and recommended to the state societies for indorsement. Seconded and carried.

General Wyman at this point explained the bill in full, and gave additional reasons for its immediate passage.

Dr. Tuckerman, Ohio, moved that the Chairman of this Committee (conference) be also on the special committee of five to go before Congress in support of these bills. Seconded and carried.

Dr. Welch, Maryland, moved that the Chairman of this Conference (Dr. Johnson) be the chairman of the subcommittee of five.

Dr. Johnson, District of Columbia, said he preferred not to be on the Committee at all. The wishes of the Committee prevailed, however, and the motion, seconded by Dr. Reading, carried.

Dr. Johnson, District of Columbia, then announced the special committee in accordance with the resolution, appointing: H. L. E. Johnson, Washington, D. C.; William H. Welch, Maryland; L. B. Tuckerman, Ohio; H. M. Bracken, Minnesota; W. P. Goff, West Virginia.

Dr. Tuckerman, Ohio, moved that the special committee of five meet on the following day, Thursday, at 2 p.m., and that arrangements be made to meet the proper committees in the House and Senate. The motion was seconded by Dr. Reading and carried.

On motion of Dr. Goff the Conference was declared closed, and the meeting adjourned.

MEETING OF THE SPECIAL COMMITTEE OF FIVE.

The Committee met at the Arlington Hotel, at 2 o'clock, Thursday, May 3, 1900, discussed the matters submitted to it by the general Conference and proceeded to the Capitol to wait upon the proper committees and submit to them the recommendations of the Conference. The Committee subsequently directed the Chairman, Dr. Johnson, Washington, D. C., to prepare written indorsements of the measures agreed to by the Conference and submit them to the proper committees in the House and Senate. The resolutions of the Committee were promptly carried out by the Chairman as directed by the subcommittee.

Dr. Tuckerman, Ohio, moved that the Chairman, Dr. Johnson, should represent the subcommittee before Congress during the absence of the Conference and subcommittee. Seconded by Dr. Bracken, and carried.

WASHINGTON, D. C., May 2, 1900.

HON. JNO. A. T. HULL, Chairman,
Committee on Military Affairs, House of Representatives.

Dear Sir:—We are directed by the Committee on National Legislation, which represents the American Medical Association and each state and territory medical society of the United States, to inform you that at our meeting in this city to-day, we unanimously endorsed bill H. R. 4483, providing for increase in the medical department of the army, and urge its prompt passage by Congress at this session.

Very respectfully,
H. L. E. JOHNSON, Chairman,
Committee on National Legislation and Subcommittee.

SUBCOMMITTEE
Dr. W. P. Goff, West Virginia.
Dr. H. M. Bracken, Minnesota.
Dr. L. B. Tuckerman, Ohio.
Dr. H. L. E. Johnson, Washington, D. C.

Letters similar to the above were sent to Senator Jos. R. Hawley, Chairman of the Committee on Military Affairs, United States Senate, indorsing bill S. 4274, providing for the appointment of assistant-surgeons of volunteers, and bill S. 2400, providing relief for acting assistant surgeons, U. S. A. (See bills above.)

WASHINGTON, D. C., May 2, 1900.

HON. GEORGE C. VEST, Chairman,
Committee on Public Health and National Quarantine,
United States Senate.

Dear Sir:—We are directed by the Committee on National Legislation, which represents the American Medical Association and each state and territory medical society of the United States, to inform you that at their meeting in this city to-day we unanimously endorsed bill S. 4171, and urged its prompt passage by Congress at this session. We consider it absolutely necessary that the U. S. Marine-Hospital Service should be empowered to regulate the fishing smacks which are now hovering along the Florida coast and menacing the public health by infecting the Southern ports. The penalty clause for violation, the right to administer oaths, and the right to establish promptly a quarantine when necessity demands, are obviously proper functions of said Government Service, and in our opinion the bill proposed should become a law, and we do so urge your committee.

Very respectfully,
H. L. E. JOHNSON, Chairman,
Committee on National Legislation and Subcommittee.

SUBCOMMITTEE
Dr. W. P. Goff, West Virginia.
Dr. H. M. Bracken, Minnesota.
Dr. L. B. Tuckerman, Ohio.
Dr. H. E. L. Johnson, Washington, D. C.

A similar letter indorsing bill H. R. 11139 (see above), was sent to Hon. W. Hepburn, Chairman of the Committee on Interstate and Foreign Commerce, House of Representatives.

WASHINGTON, D. C., May 2, 1900.

HON. WM. P. FRYE, President Pro tem., U. S. Senate,

Dear Sir:—We are directed by the Committee on National Legislation, which represents the American Medical Association and each state and territory medical society of the United States, to transmit to you resolutions adopted at our meeting in this city to-day, unanimously disapproving of bill S. 34 (for the further prevention of cruelty to animals in the District of Columbia) and recommending that it do not pass the Senate of the United States.

We respectfully request that the resolutions which were offered by Dr. Welch of Baltimore, and unanimously approved at our conference, be laid before the Senate for consideration.

Very respectfully,
H. L. E. JOHNSON, Chairman,
Committee on National Legislation and Subcommittee.

SUBCOMMITTEE
Dr. W. P. Goff, West Virginia.
Dr. H. M. Bracken, Minnesota.
Dr. L. B. Tuckerman, Ohio.
Dr. H. L. E. Johnson, Washington, D. C.

WASHINGTON, D. C., May 2, 1900.

HON. GEORGE C. VEST, Chairman,
Committee on Public Health and National Quarantine,
United States Senate.

Dear Sir:—We are directed by the Committee on National Legislation, which represents the American Medical Association and each state and territory medical society of the United States, to inform you that at their meeting in this city to-day we unanimously indorsed Senate bill 559, for the investigation by the Marine-Hospital Service of the pollution of water-supplies where the sanitary condition of the people of more than one state or territory is affected, and we urge its prompt passage by Congress at this session.

Very respectfully,
H. L. E. JOHNSON, Chairman,
Committee on National Legislation and Subcommittee.

SUBCOMMITTEE
Dr. W. P. Goff, West Virginia.
Dr. H. M. Bracken, Minnesota.
Dr. L. B. Tuckerman, Ohio.
Dr. H. L. E. Johnson, Washington, D. C.

RECOMMENDATIONS OF THE COMMITTEE OF NATIONAL LEGISLATION OF THE AMERICAN MEDICAL ASSOCIATION.

Your Committee is of the opinion that an annual conference at Washington, D. C., to consider pending national and state legislation will awaken interest in national medical affairs and will give the legislators a medium for better understanding the wishes of the country at large, with respect to medical questions.

We recommend that the American Medical Association request affiliating medical societies of the several states and territories to provide in their constitution for the appointment of a state legislative committee, whose special duty it shall be to consider all medical legislation arising in the state legislatures and in the national Congress, and advise their constituent members thereon; further, the appointment of one member and an alternate to represent their society when called by your Committee on National Legislation to a general conference in Washington, each society paying out of its treasury the expenses of such delegate or alternate to said conference.

We suggest that such committee shall be carefully selected with respect to special individual qualifications for such service, and that the tenure of office should depend on individual fitness for the position.

We recommend the adoption of the pending amendments to the constitution of the American Medical Association, providing for a standing committee on national legislation, and we recommend that the Board of Trustees of the Association be empowered to make proper appropriations for the legitimate expenses of said committee.

We further recommend that your honorable Association approve the various measures indorsed by the delegates to the Conference at their meeting in Washington, if after due consideration you consider it just and wise to do so.

Respectfully submitted,
H. L. E. JOHNSON, M.D.
WILLIAM H. WELCH, M.D.
WM. L. RODMAN, M.D.

REPORT OF COMMITTEE ON REVISION OF CONSTITUTION AND BY-LAWS.

Dr. E. Eliot Harris read the report of the Special Committee on Revision of Constitution and By-Laws, as follows:

The Committee on Revision of the Constitution and By-Laws respectfully reports that through the kind and valuable aid of

our secretary, Dr. Geo. H. Simmons, it is in possession of a large and miscellaneous collection of ordinances, resolutions and motions amending sections of the Constitution and By-Laws. The committee at this time wishes to express its acknowledgment of the help so cheerfully given by the president, secretary and other officers of the Association, with whom it has had occasion to correspond.

After a very careful study of the complicated problems involved in the revision of the Constitution and By-Laws, the committee, animated by a sincere desire to bring order out of the chaotic condition which now exists, recommends that its report on the revision of the Constitution and By-Laws be referred back to the committee for further consideration and in order that its final report may be the result of the best thought of those who have the interests of our Association at heart, we ask that the Committee on Revision of the Constitution and By-Laws be enlarged by the addition thereto of the members of the Board of Trustees and General Executive Committee, with instructions to report at the general session on Thursday morning.

Respectfully submitted,
E. ELIOT HARRIS and DUDLEY S. REYNOLDS.

On motion, the recommendation of the committee was concurred in.

RESOLUTION ON GIVING COMMISSIONS.

Dr. J. Henry Carstens, Detroit, Mich., offered the following resolution, which was referred to the General Executive Committee:

Resolved, That the receiving or giving of commissions or the division of fees, under whatever guise it may be made, shall be considered as unethical, and any member or members found guilty thereof shall be expelled from this Association, or from any Association affiliated therewith.

AMENDMENTS TO CONSTITUTION.

The next order being amendments to the Constitution, Dr. F. W. McRae, Atlanta, moved that the consideration of such amendments be deferred until Thursday morning, and that in the meantime they be referred to the Committee on Revision of the Constitution and By-Laws. Seconded and carried.

SECTION ON PATHOLOGY.

Dr. Ludwig Hektoen, Chicago, offered the following:

Resolved, That the number of sections specified in Section 11 of the By-laws be increased to thirteen by the establishing of a Section on Pathology and Bacteriology. (Referred to the General Executive Committee.)

Dr. F. F. Lawrence, Columbus, Ohio, asked for a ruling by the chair relative to the matter of registration in sections.

President Keen ruled that only the members of the Association are eligible to membership in Sections, and those who have been invited by the officers of Sections to take part in the proceedings.

Dr. Donald Maclean, Detroit, Mich., offered the following resolution, which was seconded by Dr. Reynolds, and referred to the Board of Trustees.

Resolved, That in future the reports of the treasurer and secretary, and of all special committees, be printed from THE JOURNAL press and circulated in advance to the attending members for the purpose of saving time in the general session and enabling the Association to act promptly and intelligently in discussing, criticizing, or adopting said reports.

On motion, the Association then adjourned until Wednesday, 10 a.m.

JUNE 6—SECOND GENERAL SESSION.

The Association met at 10 a.m., and was called to order by the president.

The secretary read the minutes of the previous general session, which were approved.

Dr. E. D. Ferguson, the second vice-president, was called to the chair.

Dr. William L. Rodman, Philadelphia, Pa., delivered the Oration on Surgery.

Dr. Victor C. Vaughan, Ann Arbor, Mich., followed with the Oration on State Medicine.

On motion of Dr. Marcy, Boston, a vote of thanks was extended to Drs. Rodman and Vaughan for their excellent and entertaining addresses.

Dr. Hall, Chicago, moved that a committee of five be appointed by the chair to prepare a memorial, to be subsequently submitted to the proper authorities of the United States Government, setting forth the desirability of inaugurating a change in the methods of education at West Point relative to sanitation and camp hygiene. Seconded and referred to the General Executive Committeee.

REPORT OF GENERAL EXECUTIVE COMMITTEE.

Dr. Buckley read the report of the General Executive Committee, as follows:

At the regular meeting of yesterday, 23 members being present, the matters referred to it were fully considered and are here reported on.

The matter of revision of the Constitution and By-Laws was referred to a special committee of five, who met with the Board of Trustees in the evening, and their report will be presented later.

The bill from Dr. L. B. Tuckerman for expenses in connection with the work of the Section on State Medicine is referred to the trustees.

In accordance with the request of the Section on State Medicine, the committee recommends that the name of the Section be changed to that of "The Section of Hygiene and Sanitary Science."

It was moved and carried that this recommendation be concurred in.

The report of the secretary has been referred to a special subcommittee, which will report later.

Upon the suggestions contained in the president's address, the committee would report as follows:

1. That agitation in regard to the Rush Monument Fund should be continued and pushed to the greatest extent possible.

On motion, this section of the report was adopted.

2. That agitation in regard to the antivivisection bills should also be continued and pushed with all possible activity.

On motion, this section was adopted.

3. That hereafter members by invitation be limited to foreign delegates, eminent foreigners whom the section may desire to invite to read papers and take part in the discussions, to members of the medical staff of the army, navy and marine-hospital service, and to the occasional visiting physicians from our possessions outside of the limits of the United States proper.

It was moved that this section of the report be laid on the table. Seconded.

Dr. Dougherty, Chicago, said that inasmuch as this section of the report contemplates an amendment to the Constitution which defines the classes and qualifications of members, it could not be voted on at that time, but should be laid over until the next annual meeting.

President Keen suggested that the matter be referred to the Committee on Revision of the Constitution and By-Laws, which would report next day.

Dr. Harris, New York, said that the Committee on Constitution and By-Laws had considered the matter under discussion and had embodied it in its report, which would be presented next morning.

The chair then put the motion to table this section of the report, and it was lost.

Dr. Ferguson then moved that it be referred to the Committee on Constitution and By-Laws, which was seconded and carried.

4. That the section (provisional) known as the Section on Pathology should exist, and that the present officers of the unusual section should be empowered to elect officers in the usual manner, it to be known as the "Section of Pathology and Bacteriology."

Dr. Harris, New York, stated that the Committee on Revision of the Constitution and By-Laws had also considered this matter and would report on it the following morning. He therefore moved that this part of the report of the General Executive Committee be referred to the Committee on Constitution and By-Laws. Seconded and carried.

5. That a permanent committee of five be established to have charge of the annual exhibit, and that they shall elect each year a chairman who is a resident of the place of next meeting.

Dr. Harris, New York, said this matter had been considered by the Committee on Constitution and By-Laws and would be incorporated in its forthcoming report. He therefore moved

that this suggestion be referred to the Committee on Constitution and By-Laws, which was seconded and carried.

6. That the trustees be empowered to donate the sum of $50 toward defraying the expenses of the Thirteenth International Medical Congress.

It was moved that this matter be considered by the Board of Trustees with the favorable recommendation of the General Executive Committee. Carried.

7. Regarding the recommendation of the president that the Trustees of the Association be given the responsibility of accepting or rejecting papers presented for publication; it was moved by Dr. Mayer that the question of responsibility of accepting or rejecting of papers for publication is already covered in Section IV of the By-Laws, which the committee heartily indorses.

The recommendation of the President concerning the appropriation by the trustees of the sum of $500 each year for scientific research, the same to be carefully distributed in amounts of $50 or $100 to persons carefully selected, was deemed of such commendable nature and of so large importance that it was referred to a committee consisting of Drs. Hill, Sayre and Hughes for consideration, this committee to report at the next meeting of the committee.

Dr. T. J. Happel, Tennessee, then read the report of the Board of Trustees.

REPORT OF THE BOARD OF TRUSTEES OF THE AMERICAN MEDICAL ASSOCIATION, MADE AT ATLANTIC CITY, JUNE 6, 1900.

To the Officers and Members of the American Medical Association:

Your Board of Trustees beg leave to present the following report for the year ended December 31, 1900:

RECEIPTS.

1899		
Jan. 1,	Balance Cash in Journal Office	$ 931.51
Jan. 1,	Balance in Treasurer's Office	18,729.95
June 10,	Registration Fees at Columbus Meeting	6,125.00
Oct. 25,	Interest on Indianapolis Loan	179.80
Dec. 31,	Membership Fees one year	32,840.00
Dec. 31,	Subscription Fees one year	9,488,41
Dec. 31,	Sales, Reprints, etc., one year	7,059.84
Dec. 31,	Cash Advertisements one year	33,760.82
	Total Receipts	$109,115.33

EXPENDITURE JOURNAL OFFICE.

1899		
Dec. 31,	Paper, one year	$22,923.93
" "	Labor, one year	20,812.19
" "	Salary, one year	10,636.50
" "	Postage, one year	5,851.48
" "	Editorials, one year	4,656.41
" "	Rent	1,500.00
" "	General Expense Account	1,672.29
" "	Subscription Commissions	2,921.73
" "	Advertising Commission	710.19
" "	News and Reporting	1,809.34
" "	Electros	621.87
" "	Electric Power	551.50
" "	Type	651.06
" "	Ink	718.44
" "	Metal Account	607.51
" "	Linotype Machine Appliances	256.77
" "	Press Supplies	294.36
" "	Bindery Supplies	74.44
" "	Traveling Expenses	184.58
" "	Bindery Account	75.10
" "	Stores	86.32
" "	Tools	7.27
" "	Incidentals	17.69
	Total Expense Journal Office	$77,641.01

EXPENSE TREASURER'S OFFICE.

1899		
Dec. 31,	Expense Trustees attending three meetings	$ 1,330.78
" "	General account (Stenographers, etc.)	1,901.92
" "	Treasurer's Salary	1,000.00
" "	Treasurer's Expense account	54.82
" "	Collecting Fees paid Banks	53.40
" "	Postage, Treasurer	400.00
" "	Premium on Treasurer's Bond	100.00
" "	Expense Com. on Pub. Health	49.62
" "	Books, Printing, etc.	106.35
" "	Dues Refunded (Dup. Payment)	55.00
" "	Paid Stenographer at Philadelphia Meeting	80.00
" "	Paid for Foreign Ad. Plate	14.00
" "	Paid for Safety Box Rent	10.00
" "	Amount Interest U. S. Bonds	10,812.50
	Total Treas. Exp. account	$15,968.39
	Expense account Journal Office	77,641.01
		$93,609.40

CREDIT FURTHER.

Bills Receivable	$ 190.00
Buttons and Paper on hand	960.42
Cash in Journal Office	799.15
Cash in Treasurer's Office	13,556.36
Aggregate Credit	$109,115.33

You have then in the hands of the Journal	$ 799.15
In Treasurer's Hands	13,556.36
Total Cash on Hand	$14,355.51
You have invested in Indianapolis Loan	$ 3,000.00
In U. S. Bonds	10,812.50
Total Investment	$13,812.50
Cash on Hand	14,355.51
Aggregate	$28,168.01

As already reported, you had invested $13,812.50, and a balance in the treasurer's hands of $13,556.36 on Jan. 1, 1900. While this amount was on hand Jan. 1, 1900—but in order that an up-to-date view of your cash account may be had—it is necessary to state that since Jan. 1, 1900, the close of our fiscal year, we have paid the balance due on the two Linotype machines, $5400, and have been compelled to buy and pay for a new Miehle press, $2925, and a motor to run the same, $225; again, a new cutter had to be bought, but using the old one in exchange, our new one costs us $325; and finally a new Linotype machine has been bought to aid in meeting the growing business of THE JOURNAL, the cash payment on which was $550, making a total of $9425 to be deducted from your cash on hand, leaving a real balance of only $4131.36 available for debts. We would add in regard to this apparent small balance that we were compelled to pay out $4047.65 for paper used in 1898, it being customary then to charge up accounts as paid regardless of when they were contracted. This has been changed by your Board of Trustees. All bills are cash on delivery, and we feel that we have effected a considerable saving along this line. As the books have been now correctly opened and material is charged when purchased, it makes an apparent cost for production for the year 1899 that much more than it really should be, and would increase the net gain that amount for that year.

We present you herewith an inventory of THE JOURNAL office, Dec. 31, 1899:

INVENTORY.

PRESS-ROOM AND PROOF-ROOM FURNITURE AND FIXTURES.

1	Metal Furnace	$ 75.00
285	Galleys at 20c.	57.00
36	Galleys	24.00
5	Pairs Chases	20.00
3	Sets Chases	50.00
3	Imposing Stones	40.00
1	Pair Large Scales	14.00
7	Case Stands	5.00
1	Oak Washstand	2.00
3	Binding Tables at $2.00	6.00
2	Make-up Tables	5.00
2	Linotype Machine Chairs	8.00
1	Type Cabinet, new	24.00
1	Type Cabinet, old	15.00
	Stands, Drawers, etc.	20.00
	Journal Files	125.00
2	Desks at $10.00	20.00
3	Oak Chairs, high back	3.00
1	File Case	2.00
		$515.00

OFFICE FIXTURES AND FURNITURE.

	Partitions and Panel Work	$150.00
9	Oak Chairs, high backs	9.00
1	Ant. Oak Desk (Ed.)	65.00
1	Ant. Oak Book Case (Ed.)	20.00
	Book Shelving (Ed.)	25.00
1	File Case (Ed.)	60.00
1	Card Index (Editorial Room)	15.00
1	Victor Safe	15.00
1	Large Safe	123.50
1	Typewriter Stand (Ed.)	3.00
1	Chair, Oak (Ed.)	6.00
1	Electric Fan	10.00
1	Dictionary Stand	2.00
4	Roll Top Oak Desks	50.00
4	Typewriters at $25.00	100.00
1	Typewriter	75.00
1	Flat Top Typewriter Desk	6.00
1	Flat Top Subscription Clerk Desk	6.00
2	Flat Top Typewriter Desks	30.00
2	Flat Top Desks	10.00
5	Window Shades	10.00
1	Index Cabinet (Bookkeeper)	20.00
1	File Case (Bookkeeper)	1.50
1	High Desk (Bookkeeper)	20.00
1	Carpet (Ed. Room)	15.00
1	Subscription Cabinet and Base	52.50
2	Desk Files	7.00
1	Wicket	7.50
1	Combination Desk and Book Case	8.00
1	Book Case, Light Oak	10.00
3	Revolving Stenographers' Chairs	10.50
7	Revolving Chairs	14.00
1	Letter Filing Cabinet	8.00
1	Letter Press	5.00
1	High Stool	.50
1	Combination Dictionary Stand and Book Case	2.00
1	Copy Bath	4.00
1	Exchange Rack	5.00
1	Walnut Book Case	5.00
	Miscellaneous Articles	10.00
	Total	$1,004.50

MACHINERY AND PLANT.

1 Folding Machine	$1,116.25
1 Folding Machine	175.75
1 Miehle Cylinder Press	2,180.25
1 Miehle Cylinder Press	1,140.00
1 Miehle Cylinder Press	950.00
1 Miehle Cylinder Press (Not Paid)	2,925.00
1 Crocker Wheeler Motor	207.00
1 Crocker Wheeler Motor	70.00
1 Pony Gordon Press	103.56
1 Sheridan Auto Cutter	175.00
1 Stitching Machine	150.00
1 Proof Press	9.00
2 Linotype Machines	6,750.00
1 Stitcher (Not Paid)	235.00
1 Crocker Wheeler Motor (Not Paid)	225.00
1 Linotype Machine ordered ($550 of above paid)	3,100.00
	$19,511.80

RECAPITULATION.

Press Room and Proof Room Furniture and Fixtures	$ 515.00
Office Furniture and Fixtures	1,004.50
Machinery and Plant	19,511.80
Total value	$21,031.30

Of this amount there is unpaid $5,935.

In making this inventory the depreciation on machinery, type, fixtures, etc., has been charged at a conservative basis.

No inventory was furnished last year.

The inventory given now more than doubles that reported in 1898 at Denver. All of these investments we were compelled to make. THE JOURNAL has now an almost complete office outfit and can do all the work demanded of it for the present.

The growth of THE JOURNAL for the past year has been steady. Every month has shown an increase of subscribers and the amount of advertising. Your Board of Trustees in addition to the exclusions from the pages of THE JOURNAL already ordered, have decided that no proprietary medicines advertised in the public press shall be allowed space in THE JOURNAL pages. This we felt was due to the medical profession, and less than that could not well be done.

SUBSCRIPTION DEPARTMENT.

The following figures indicate the gross issue for each week during 1899:

WEEKLY EDITION.			WEEKLY EDITION.		
Jan. 7,	12,000		July 1,	12,700	
" 14,	11,500		" 8,	12,700	
" 21,	11,500		" 15,	13,800	
" 28,	11,750		" 22,	12,800	
		46,750	" 29,	12,700	
					63,700
Feb. 4,	11,800				
" 11,	12,000		Aug. 5,	12,800	
" 18,	12,100		" 12,	12,800	
" 25,	12,250		" 19,	12,750	
		48,250	" 26,	12,700	
					51,100
Mar. 4,	12,200				
" 11,	12,200		Sept. 2,	15,000	
" 18,	12,300		" 9,	15,000	
" 25,	12,250		" 16,	15,000	
		48,950	" 23,	15,000	
			" 30,	15,100	
Apr. 1,	12,200				75,100
" 8,	12,500				
" 15,	13,200		Oct. 7,	15,500	
" 22,	13,000		" 14,	15,600	
" 29,	13,200		" 21,	15,600	
		64,100	" 28,	15,800	
					62,500
May 6,	13,200				
" 13,	13,200		Nov. 4,	15,800	
" 20,	13,200		" 11,	16,100	
" 22,	13,000		" 18,	16,000	
		52,800	" 25,	15,800	
					63,700
June 3,	15,000				
" 10,	13,200		Dec. 2,	16,000	
" 17,	13,100		" 9,	16,000	
" 24,	12,700		" 16,	16,000	
		54,000	" 23,	16,000	
			" 30,	16,000	
		314,850			80,000
					396,100

Grand Total	710,750
Weekly Average	13,672

The comparative statement below indicates the increase in THE JOURNAL'S circulation during the past year.

COUNTING OF MAILING LIST.

	JANUARY 1899	1900
Copies to members	7,997	8,445
" " subscribers	2,453	4,633
" " advertisers	200	233
" " exchange (Domestic)	149	153
" " exchange (Foreign)	56	59
" " Med. Coll. Libraries	104	8
" " subscription agents		4
	10,959	13,635

The above indicating an increase of 2,676.

Of this increase 2628 are in new members and subscribers, which, according to records on hand, is the largest increase of any single year since the establishment of THE JOURNAL.

The following is a detailed count of mailing list by states, indicating the gains and losses during the past twelve months:

State	Members.	Subscribers	Total	Gain for Year	Loss for Year
Alabama	71	15	86	8	
Alaska		1	1		
Arizona	18	5	23	3	
Arkansas	66	26	92	13	
California	268	54	322	34	
Colorado	327	32	359		20
Connecticut	105	6	111	2	
North Dakota	35	24	59	26	
South Dakota	22	17	39	10	
Delaware	25	6	31		4
Dist. of Col.	120	43	163	3	
Florida	44	4	48	6	
Georgia	138	20	158	25	
Illinois	885	1052	1937	518	
Idaho	15	4	19	3	
Indian Territory	14	14	28	7	
Indiana	443	211	654	150	
Iowa	356	225	581		29
Kansas	102	62	164	28	
Kentucky	167	155	322	69	
Louisiana	52	52	104	42	
Maine	47	10	57	9	
Maryland	142	63	205	52	
Massachusetts	266	60	326	48	
Michigan	323	290	613	208	
Minnesota	167	156	323	81	
Missouri	266	176	442	96	
Mississippi	49	21	70	14	
Montana	33	7	40		1
Nebraska	144	70	214	33	
New Mexico	19	5	24	6	
Nevada	5	3	8		1
New Hampshire	47	8	55		2
New Jersey	172	20	192	14	
New York	430	131	561	64	
North Carolina	46	26	72	13	
Ohio	866	528	1394	484	
Oklahoma Ter.	18	12	30	15	
Oregon	46	13	59	2	
Pennsylvania	1088	126	1214	53	
Rhode Island	57	4	61	6	
South Carolina	50	22	72	7	
Tennessee	152	76	228	53	
Texas	124	126	250	79	
Utah	37	3	40		2
Vermont	43	10	53	14	
Virginia	81	88	169	74	
Washington	41	15	56	9	
Wyoming	15	7	22	2	
West Virginia	68	56	124	60	
Wisconsin	286	173	459	75	
	8401	4333	12732	2518	59
Canada	8	58	66	46	
Mexico	5	10	15	6	
Cuba (Foreign)	4	3	7	7	
Hawaiian Islands	1	11	12	12	
Philippine Islands		1	1	1	
Foreign	26	25	51	12	
U. S. A.		171	171	64	
U. S. M. Hosp.		21	21	21	
	8445	4633	13076	2687	59
Advertisers			233		
Domestic Exchange			153		
Foreign Exchange			59		
Medical College Reading Rooms			108		
Agents			4		
Total			13635		

NUMBER OF COPIES SENT OUT JANUARY 1, 1900.

Members	8,445
Subscribers	4,633
Advertisers	233
Domestic Exchange	153
Foreign Exchange	59
Medical College Reading Rooms	108
Advertisers	4
Total	13,635

ADVERTISING DEPARTMENT.

The following comparative statement indicates the increase in advertising collections during the past twelve months:

	1898	1899
January	$2,061.98	$3,292.84
February	2,415.67	2,391.65
March	1,556.51	2,763.23
April	2,603.23	2,595.11
May	1,095.43	3,240.89
June	1,568.44	2,343.75
July	2,698.05	3,453.41
August	1,187.84	2,698.25
September	1,635.44	2,093.68
October	3,350.31	3,891.40
November	1,719.96	2,734.25
December	1,735.85	2,262.46
	$23,629.71	$33,760.82

Indicating an increase of $10,131.11.

An effort is being made—and we are promised by the chairman of the Committe on Exhibits at the Atlantic City meeting that this will be carried out—to have THE JOURNAL advertisers receive preference in the allotment of space in the exhibit hall. If such an arrangement could be permanently

effected, it would be a decided advantage, and inasmuch as exhibit space at the annual meetings is under the jurisdiction of the Association, it seems practicable, and would greatly assist in amalgamating the work for the final good of the Association.

The Board has attempted to reduce the affairs of THE JOURNAL to a business basis and to this end has had all of the books and papers gone over by expert accountants. New books have been opened and rearranged and the bookkeeping has been systematized. We believe your JOURNAL to be on a firm basis.

ALONZO GARCELON, President.

CHARLES A. L. REED, Secretary.

E. E. MONTGOMERY.
I. N. LOVE.
JAMES TAGGART PRIESTLEY.
JOSEPH EASTMAN.
HENRY L. E. JOHNSON.
T. J. HAPPEL.

Dr. Harris, New York, moved that the report be adopted, and that a vote of thanks be extended to the Board of Trustees, the treasurer and editor for their faithful and efficient services. Seconded.

Dr. Bishop, of Pennsylvania—When we recall the previous reports of committees and the previous occurrences we have had, we can not too highly commend the work of the Board of Trustees and of the editor for the healthy condition of our finances, because I am sure it is largely due to their efforts. I hope that the members of the profession outside of the Association will realize the importance of coming into it and making our number as great as it should be, and whether it would not be wise to call upon the various state societies to co-operate more actively in the effort to increase the circulation of THE JOURNAL by increasing the membership of the Association. It would be a benefit to the state societies as well as to the American Medical Association.

The motion of Dr. Harris was then put and carried unanimously.

REPORT ON ASSOCIATION MEDAL.

Dr. Geo. M. Gould, Philadelphia, read the report of the Committee on American Medical Association Medal, as follows:

The committee having in charge the award of the American Medical Association Prize Medal respectfully report that they have carefully and independently examined the six essays submitted to them, and unanimously voted to recommend that the Association should award it to the author of the essay entitled "Quantitative Tests for Proteolysis," by "Ganagaru." Upon opening the envelope containing the writer's name we found the author of this essay to be Dr. A. L. Benedict, of Buffalo, N. Y. To him your committee therefore recommend the award of the prize medal. In accordance with the instructions contained in the resolution of the Association, your committee have had designed and made a gold medal about the diameter of a $20 United States gold coin, and about twice as thick, containing upon one side the stamp of the American eagle with shield, and the legend, *E pluribus unum*. Surrounding this emblem are the words "THE AMERICAN MEDICAL ASSOCIATION." Upon the other side are the words, "Prize for Best Essay," occupying the upper part, while through the center runs the design of the Esculapian staff and a tablet bearing the inscription: "Awarded to A. L. Benedict, A.M., M.D. Essay: Quantitative Tests for Proteolysis, June, 1900."

Your committee would also recommend in order to save the trouble and expense of new designs in future years, that in general features the present medal be adopted as the style of the Association medal for permanent use.

The committee would recommend that in future the recipient of the prize shall be given the option of the gold medal or a bronze replica of the medal and the balance of the appropriation in money.

The committee also recommend that the paper of Dr. Benedict be published in the Association JOURNAL.

Respectfully submitted,

GEORGE M. GOULD.
E. FLETCHER INGALS.
T. W. HUNTINGTON.
Committee.

On motion, of Dr. Bishop, the report and recommendations contained therein were adopted.

Dr. Keen then presented the medal to Dr. Benedict.

REPORT ON SENN MEDAL.

Dr. W. L. Rodman, Philadelphia, presented a verbal report of the Committee on Senn Medal. He said that the committee, after carefully examining all papers that had been presented for the medal, were of the unanimous opinion that the writer with the *nom de plume* "Exstrophy" is entitled to the medal. The identity of the author is still unknown to the committee.

Dr. Rodman then handed President Keen an envelope containing the author's name, and asked him to open it, which he did, and the name was F. Gregory Connell, 381 East Superior Street, Chicago, Ill. The title of Dr. Connell's essay was "Exstrophy of the Bladder."

Dr. Keen then presented the medal to Dr. Connell, and said that his contribution was one of great credit to American surgery.

REPORT ON RUSH MONUMENT FUND.

Dr. J. C. Wilson, Philadelphia, read the report of the Committeee on the Rush Monument Fund, as follows:

Your committee has the honor to report that in accordance with the statement of the treasurer, Dr. Henry D. Holton, dated June 1, 1900, and hereto appended, there was received during the year ending upon that date, in cash: From the California Medical Society, $500; from the Iowa Medical Society, $240.12; from the Connecticut Medical Society, $98.28; and from Dr. Jas. T. Jelks, Hot Springs, Ark., $100; a total in new contributions of $938.40; and that the accumulated funds now in the treasurer's possession, invested in notes and bonds, amount to $10,965, which, together with the cash in hand—$365.05—reach a total of $11,330.05.

An active committeee of the Philadelphia County Medical Society, under the chairmanship of Dr. Curtin, is now engaged in an effort to raise $1500 for this fund, with a reasonable hope of success.

Under date of Jan. 5, 1900, a circular letter was forwarded by the treasurer to the presidents of the various state societies, calling attention to the pledges made at the meeting of the Association in Philadelphia in 1897, and requesting reports. The payments to the fund from the Arkansas, California, Connecticut and Iowa societies, referred to above, were made in response to this appeal. In other instances, however, the replies indicated an unaccountable lack of interest in the matter. Committees had been appointed but had not reported; no committees had been named; one state society disclaimed any responsibility in the matter, averring that any pledge made had been unauthorized, etc.

In the report made by Dr. Gihon at the meeting last year, it is stated that "The Secretary of the Navy has assigned an unequalled site for the structure in the beautiful park fronting the United States Naval Museum of Hygiene." In that report Dr. Gihon dwells upon the fact that in fifteen years of effort no more than the sum of $10,000 had been collected, whereas $100,000 is regarded as necessary for the completion of the monument. The contributions during the past year, together with interest, have augmented that sum by nearly $1500—a rate of increase which, even could it be sustained, would with compound interest defer the realization of the plan to a period far beyond the expectancy of life of most of those present at this meeting.

In this assembly no argument is necessary in support of a design so lofty. In thus honoring the memory of Rush the profession will honor itself. In thus commemorating his abilities and achievements it will remind the world that gifts of the highest order and usefulness, of the highest beneficence, belong to that silent profession of which the Sydenham of America was a brilliant type.

Your committee respectfully represent that the matter grows more urgent as time passes, that it should be no great task for the profession of the United States to raise the remaining sum of $88,000 for this noble object, and that what the enthusiasm of Philadelphia in 1897 failed to do, the earnest purpose of the Association at Atlantic City in 1900 can surely accomplish.

Your committee suggests that three additional members be added to its number.

Henry D. Holton, Treasurer,

IN ACCOUNT WITH RUSH MONUMENT FUND

	Dr.
June 1, 1899, To Cash on Hand	$ 882.52
To Cash from California Medical Society	500.00
To Cash from Dr. J. T. Jelks	100.00
To Cash from Iowa Medical Society	240.12
To Interest on Bonds and Mortgages	532.00
To Tulock Mortgage and Interest	1,025.00
To Cash from Connecticut Medical Society	98.28
	$3,377.92

Cr.

By Tacoma Light and Water Bonds	$2,000.00
By Postage, stationary, premium, interest, com., revenue stamps	247.87
By Averill Note	765.00
By Cash on Hand	365.05
	$3,377.92

AMOUNT OF FUND JUNE 1, 1900.

Funds Invested in Notes and Bonds	$10,965.00
Cash on Hand	365.05
	$11,330.05

It was moved, seconded, and carried that the report be accepted and the recommendation adopted.

The president appointed as additional members of the committee on Rush monument fund, Drs. Frank Billings, L. Duncan Bulkley and W. L. Rodman.

Under the head of "Special Committees," Dr. Norman Bridge, chairman of the Committee on Tuberculosis, desired to present the report of this committee by title, as it was to be read in full in the afternoon, in the Section on State Medicine.

NOMINATING COMMITTEE.

The secretary announced the members of the nominating committee as follows:

COMMITTEE ON NOMINATION—Alaska, ———; Alabama, W. E. B. Davis; Arizona, Wm. Duffield; Arkansas, ———; California, W. S. Wills; Colorado, Edward Jackson; Connecticut, W. S. Barber; Delaware, Willard Springer; District of Columbia, J. Wesley Bovée; Florida, ———; Georgia, J. S. Hiers; Illinois, Frank Billings; Idaho, Ed. E. Maxey; Indian Territory, ———; Indiana, E. Walker; Iowa, J. A. Scroggs; Kansas, R. L. Magee; Kentucky, J. N. McCormick; Louisiana, Otto Joachim; Maine, ———; Maryland, Fulton; Massachusetts, E. B. Harvey; Michigan; H. O. Walker; Minnesota, A. J. Stone; Mississippi, ———; Missouri, J. N. Jackson; Montana, T. J. Murray; Nebraska, W. L. Dayton; Nevada, ———; New Hampshire, George Cook; New Jersey, A. McAlister; New Mexico, ———;New York, E. Eliot Harris; North Carolina, Chas. L. Pearson; North Dakota, I. N. Wear; Ohio, P. M. Foshay; Oklahoma, ———; Oregon, ———; Pennsylvania, W. B. Lowman; Rhode Island, ———; South Carolina, Evans; South Dakota, ———; Tennessee, Frank H. Glenn; Texas, Bacon Saunders; The United States Army, Capt. E. B. Flick; The United States Navy, Robert A. Marmion; Utah, Charles G. Plummer; United States Marine Hospital Corps, P. H. Bailhache; Vermont, D. C. Hawley; Virginia, John N. Upshur; Washington, W. C. Cox; West Virginia, John L. Dickey; Wisconsin, W. B. Hill; Wyoming, ———.

RESOLUTION ON THE JOURNAL'S ADVERTISING POLICY.

The secretary read the following resolution, which was offered by Drs. A. A. Eshner and S. Solis-Cohen, and, on motion, was adopted:

Resolved, That the steps taken by the Editor and Trustees of THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION, looking toward the fulfilment of the expressed will of the Association, excluding from its columns advertisement of nostrums and secret preparations, be cordially approved, and that the Editor and Trustees be encouraged to continue in this course until the work is completed.

The secretary read a telegram from Surgeon-General Sternberg regretting his inability to attend the meeting.

RESOLUTION ON ORATIONS.

Dr. C. L. Bonifield, Ohio, offered the following:

Resolved, That the orations in Surgery, State Medicine and Medicine be omitted from the program in the future. Seconded.

Dr. L. Duncan Eve, of Nashville, moved as a substitute that the general addresses be limited to thirty minutes. Seconded.

Dr. James T. Priestley, Iowa, said that the matter of the general addresses was thoroughly discussed jointly by the Trustees and the Committee on Constitution and By-Laws, and he expressed the hope that the motions that had been made be withheld until the presentation of the report of the Committee on Constitution and By-Laws. He therefore moved as an amendment that the matter be referred to this committee.

The motion as amended was put and carried.

Dr. F. F. Lawrence, Ohio, moved that the matter of selecting a place of meeting be referred to the General Executive Committee for consideration, with a view to securing better railroad rates, to report the following morning.

The matter was so referred.

RESOLUTION ON INSTRUCTION IN SANITATION.

Dr. Tuckerman, Ohio, presented the following resolution, which was seconded and referred to the General Business Committee.

Resolved, That the national legislative committee, in conjunction with the special committee on the reorganization of the army and navy medical corps, cause to be drafted a bill providing for adequate instruction in hygiene and sanitation in the national military and naval academies, such bill to be discussed and perfected at the next meeting of the joint national legislative committee of the American Medical Association and affiliated societies, and to be pushed through Congress as speedily as possible.

Dr. Savage, Nashville, moved that one or more of the vice-presidents stand at the entrance to the hall during the general meeting hereafter to keep order. Seconded.

Dr. English, New Jersey, moved as a substitute that this matter be referred to the Committee of Arrangements.

The substitute was seconded and carried.

On motion, the Association adjourned until Thursday morning, 10 o'clock.

JUNE 7—THIRD GENERAL SESSION.

The Association met at 10 a.m., and was called to order by the president.

The secretary read the minutes of the previous general session, which were approved.

The third vice-president, Dr. J. M. Allen, was called to the chair.

Dr. John A. Witherspoon, Nashville, Tenn. delivered the Oration on Medicine. The address was listened to with marked attention, and the speaker was warmly applauded throughout its delivery.

Dr. Tuckerman, Ohio, moved that a vote of thanks be extended to Dr. Witherspoon for his interesting and able address, which was seconded and carried.

REPORT OF GENERAL EXECUTIVE COMMITTEE.

The report of the General Executive Committee was then read by Dr. Bulkley, as follows:

1. The resolution of Dr. L. B. Tuckerman in regard to instruction in hygiene and sanitation in the National Military and Naval academies is recommended to the Association for adoption.

Dr. Reynolds, Kentucky, moved that the action of the General Executive Committee be concurred in, which was seconded and carried.

2. The resolution of Dr. Hall, of Chicago, covering the same ground, is not necessary.

3. The resolution of Dr. F. F. Lawrence, Ohio, that the matter of selecting a place of meeting be referred to the General Executive Committee for consideration, with a view, if possible, of securing better railroad rates, is not recommended for adoption, as that duty, by the Constitution, belongs to the Nominating Committee and can not be altered by resolution.

4. The motion of Dr. Carstens, Michigan, relative to the division of fees, as belonging to the organic law of the Association, was referred to the special Committee on Revision of the Constitution and By-Laws, which will report later.

5. The committee believes that the Association yesterday, on the request of the Committee on Prize Medal, resolved that it be thrown open to others outside of the Association. After very full consideration, the committee recommends that the action be reversed, and that the prize medal be open for competition only to members of the Association.

On motion of Dr. Harris, New York, the recommendation of the General Executive Committee was adopted.

6. The committee indorsed the action of the Prize Medal Committee and accepted the medal offered as a model for future medals.

7. Upon the recommendation of the President that an appropriation be made for the promotion of scientific research, the committee recommends the following:

Resolved, That the suggestions of the president be adopted, namely, that the Trustees set aside the sum of $500 annually for the encouragement of scientific research, with the further recommendation that, as our financial condition will permit, in the future, the sum be increased to as great extent as possible. Also that the manner in which this sum is to be expended be left to the Committee on Scientific Research, provided, however, that sums to be given to individuals do not exceed $50 to $100 at one time.

On motion this recommendation of the General Executive Committee was adopted.

8. The report of the secretary, which was referred to the committee, does not contain anything requiring action by the committee.

9. The Section on Neurology and Medical Jurisprudence has voted, requesting that its name be changed to that of the "Section of Nervous and Mental Diseases." This matter was referred to the Special Committee on Constitution and By-Laws, with the recommendation that it be so changed.

10. The resolutions offered by Dr. Brower, as follow, are recommended for adoption:

Resolved, That a committee be appointed by the Association on the organization of the profession throughout the United States to co-operate with the Committee on National Legislation; this committee to consist of one member from each state and territory represented in the Association.

Resolved, That a committee of three be appointed by the president to prepare plans in detail for such committee on organization, to enter into correspondence with officers of the various state societies and take such action in the premises as it may think advisable, and that the Trustees be requested to appropriate a sum not exceeding $150 for the necessary expenses of the committee.

It was moved and seconded that the recommendation be concurred in.

Dr. Bishop, Pennsylvania, moved that the army, navy, and marine-hospital service be included in the committee. Seconded.

Dr. Tuckerman, Ohio, moved that the Bureau of Animal Industry be also added to the committee. Seconded.

Dr. Bishop accepted the amendment.

The motion with its amendments was put and carried.

The resolution offered by the Section on State Medicine that the Government of the United States be requested to make the Bertillon classification of the cause of death the basis of the mortality statistics of the census of 1900 is not recommended for adoption.

The committee would report that it has paid especial attention to the daily work of the Sections, and has had daily reports from each in regard to the numbers in attendance, the number of papers read, and the number of papers the authors of which failed to appear.

The General Executive Committee unanimously indorsed the action of its special committee, who met with the Trustees in the revision of the Constitution and By-Laws and recommended the acceptance of their work, and the adoption of the revision that is to be presented.

Dr. A. J. Stone, St. Paul, then read the report of the Nominating Committee, as follows:

REPORT OF NOMINATING COMMITTEE.

Your Nominating Committee met June 6, at 3:30 p.m., with Dr. A. J. Stone, of Minnesota, chairman, and W. E. B. Davis, Alabama, secretary, and begs leave to report as follows:

For president for the ensuing year, Dr. Charles A. L. Reed, Cincinnati, Ohio.

First vice-president, Dr. A W. Calhoun, Atlanta, Ga. Second vice-president, Col. A. A. Woodhull, United States Army, Denver, Colo. Third vice-president, Dr. Philip Marvel, Atlantic City, N. J. Fourth vice-president, Dr. William E. Quine, Chicago. Permanent secretary, Dr. George H. Simmons, Chicago. Assistant secretary, Dr. Wm. Davis, St. Paul, Minn. Treasurer, Dr. Henry P. Newman, Chicago. Librarian, Dr. George W. Webster, Chicago. Trustees, Dr. Miles F. Porter, Fort Wayne, Ind.; Dr. E. Fletcher Ingals, Chicago; and Dr. W. L. Rodman, Philadelphia. To fill the vacancy caused by resignation of Dr. Charles A. L. Reed, Dr. Joseph M. Mathews, Louisville, Ky. Nomination for Judicial Council: Dr. James R. Guthrie, Iowa; Dr. G. B. Gillespie, Tennessee; Dr. R. C. Moore, Nebraska; Dr. Ida J. Heiberger, District of Columbia; Dr. John B. Roberts, Philadelphia; Dr. Charles S. Rodman, Connecticut; Dr. S. L. Jepson, West Virginia. Address on Surgery, Dr. John A. Wyeth, New York. Address on State Medicine, Dr. Geo. M. Kober, District of Columbia. Address in Medicine, Dr. N. S. Davis, Jr., Chicago. Place of meeting, St. Paul, Minn. Chairman Committee of Arrangements, Dr. John F. Fulton, St. Paul, Minn.

The secretary read a list of delegates to the Pan-American Medical Congress, at Havana, Cuba, December, 1900.

It was moved that the report of the Nominating Committee be adopted as read. Seconded.

Dr. Bulkley moved to amend the report by substituting the names of Drs. Eastman and Priestley as Trustees in the place of Drs. Porter and Ingals. Seconded.

Dr. Wishard, Indiana, moved to lay the amendment on the table. Seconded.

There being some doubt as to the vote on the amendment, a division was called for, with the result that 118 voted for tabling the amendment while 99 were opposed to it.

The president declared the motion to table carried.

The original motion to adopt was then put and carried.

Dr. Stone, Minnesota, moved that the time of meeting be on the second Tuesday in June; and that the place of meeting be St. Paul. Seconded.

Dr. Donald Maclean, Detroit, moved to substitute Minneapolis for St. Paul. Seconded.

Dr. E. F. Ingals, Chicago, asked if the Constitution did not fix the time of meeting each year.

The secretary called attention to a resolution which is to the effect that if the place of meeting is to be in the South, it is to be held in May; if North of Mason and Dixon's line, it is to be held the first week in June.

Dr. Happel, Tennessee, made the point of order that by adopting the report of the Nominating Committee it carried with it the time and place of next meeting.

The president ruled that this point of order was well taken.

Whereupon, Dr. Marcy, Boston, moved a reconsideration so far as the date of meeting was concerned. Seconded.

After some discussion, Dr. Harris, New York, moved that the motion to reconsider the date of the meeting be laid upon the table, which was seconded and carried.

Under the head of "Reports of Special Committees," it was moved that the report of the Committee on Necrology be read by title. Seconded and carried.

REPORT OF BOARD OF TRUSTEES.

Dr. Happel, Tennessee, read the report of the Board of Trustees, as follows:

I have been delegated to present the report of the Board of Trustees on various matters which have been presented to them pertaining to questions of finance.

1. Upon the recommendation of the president that the Trustees be empowered to donate the sum of $50 toward defraying the expenses of the Thirteenth International Medical Congress, we report that this recommendation be concurred in, and that the amount be allowed and paid.

It was moved, seconded and carried that the recommendation of the Board of Trustees be approved.

2. Regarding the resolution offered by Dr. Maclean, that the reports of the secretary, treasurer and special committees be printed in advance and distributed to the members, the Board of Trustees would recommend that the reports of the secretary, treasurer, and Trustees be printed in advance, but not those of special committees, and we would request that copy be furnished a few days in advance of the meeting of the Association.

It was moved that this recommendation be concurred in. Seconded and carried.

3. As to the resolution in regard to the continuance of the Committee on Public Health and the appropriation of $400 for the purpose of defraying the expenses of that committee, which was also referred to the Board of Trustees, we recommend that, inasmuch as a legislative committee has been provided in the Constitution, all such matters be referred to that committee.

On motion, this recommendation was concurred in.

4. There was referred to the Board of Trustees the expense account of Dr. Tuckerman. This account was not sufficiently itemized for the board to act intelligently upon it, hence we respectfully refer it back to Dr. Tuckerman for an itemized statement of expenses, then the Board will be prepared to act upon it.

On motion, the recommendation to refer the matter back to Dr. Tuckerman was concurred in.

At this juncture, Drs. Mathews and Love were appointed as a committee to escort the president-elect to the platform.

Dr. Reed was introduced and made a short speech, accepting the presidency of the Association.

REPORT ON REVISION OF CONSTITUTION.

Dr. Happel, Tennessee, presented the report of the Committee on Revision of the Constitution and By-Laws, which was composed of a Special Committee, the General Executive Committee, and the Board of Trustees. He said the revision

had involved a great deal of work, especially as to corrections, codification, change of verbiage, etc., but they had always had in view the exact spirit, if not the letter, of the Constitution.

The report was read and adopted.

In regard to the proposed amendments the committee would report, as follows:

1. Amendment offered by the Committee on Medical Legislation:

Offered by the Committee on Medical Legislation:

Section 3. Standing Committees.—The committee on legislation shall consist of three members: one of whom shall be a resident of Washington, one of Baltimore, and one of Philadelphia. It shall be the duty of this committee to represent before Congress the wishes of this ASSOCIATION regarding pending medical and sanitary legislation. This committee shall also invite to an annual conference to be held at Washington, one delegate each from the army medical service, the navy medical service, the marine-hospital service and from each State society of legally qualified practitioners of medicine: such conference to consider questions of national medical and sanitary legislation and report to their representative bodies for actions.

The joint committee would recommend the adoption of the same with the following amendments: In the second line, insert after the word members, the following: "To be appointed annually by the President;" in the third line, strike out the word "Baltimore" and insert the word "Maryland;" and in the same line, strike out the word "Philadelphia" and insert the word "Pennsylvania;" in the ninth and tenth lines, strike out the phrase "of legally qualified practitioners of medicine," and insert "in affiliation with the American Medical Association;" in the ninth line, after the word "service," insert the words, "United States Bureau of Animal Industry;" after the word "actions" at the close of the section, insert "this body shall have power to act *ad interim* when necessity requires."

The committee recommends the adoption of this amendment with the changes mentioned.

On motion, the recommendation was concurred in.

2. The amendment to the By-Laws which follows bears upon the amendment just adopted.

In By-Laws, Section 3, Standing Committees, insert after "board of trustees" the words, "committee on legislation," and after the duty of "boards of trustees" the following clause: "The committee on legislation shall report annually to this ASSOCIATION its action during the previous year and shall recommend to the ASSOCIATION such action regarding pending legislation as it shall deem proper."

Your committee would report in regard to the proposed amendment to the By-Laws that this amendment be adopted, amending same by striking out in the fourth line the word "annually," and inserting after the word "Association" in the same line, the following: "at each annual meeting."

On motion, this amendment as amended by the committee was adopted.

3. The next amendment is one submitted by Dr. Reynolds, of Kentucky.

Offered by Dr. Dudley S. Reynolds, Louisville, Ky.:

Amend Article 2 of the Constitution, by adding to the qualifications of membership in those societies eligible to send delegates to this ASSOCIATION, after the words "Marine-Hospital Service of the United States," at the conclusion of the second paragraph: "*provided*, however, that no state, county or other auxiliary body sending representatives shall receive into its membership any one who may after 1900 have received the degree of Doctor of Medicine on less than four years of graded instruction or an equivalent requirement." (Laid over for one year.)

Your committee would report upon the amendment offered by Dr. Reynolds, Louisville, favorably, with the following change: Strike out the word and figures "after 1900" in the seventh line, and insert after the word "medicine" in the same line, the word and figures "after 1901."

The committee unanimously recommends the adoption of Dr. Reynolds' amendment, with the changes proposed.

On motion of Dr. Savage, the amendment as amended by the committee was adopted.

The last amendment is that offered by Dr. Q. C. Smith, of Texas.

Amendments to the Code of Ethics offered by Dr. Q. C. Smith, Austin, Texas:

Article 4. Section 9.—Be it

Resolved, That attending physicians are entitled to charge a consultation fee for each consultation, in addition to visit fee, equal in amount to that ordinarily charged in similar cases by consulting physicians residing in the same city, locality or community where the service may be rendered.

Your committee would report in regard to the amendment of Dr. Smith that said amendment be rejected.

On motion, the action of the joint committee was concurred in.

The following resolution was adopted at a joint meeting of the Trustees, Committee from General Executive Committee, and Special Committee on Revision of Constitution and By-Laws:

Resolved, That we report that, in accordance with a motion passed last year, the Trustees have conferred with the Executive Committee and a special committee, and have prepared for publication a revised edition of the Constitution and By-Laws of the Association, and recommend that the same be adopted and published.

On motion, the resolution was adopted.

The committee would further report in regard to some recommendations in the president's address.

As to the members by invitation, the committee would state that that matter is fully covered in the revised By-Laws.

In regard to the appointment of a committee of five to have charge of exhibits, the committee would report that the same is already provided for in the Constitution and By-Laws under the head of "Committee of Arrangements," hence the committee could not recommend the adoption of the suggestion.

Your committee report regarding the resolution offered by Dr. J. Henry Carstens, of Michigan, recommending that said resolution be rejected. The committee recognizes the fact that it would be impossible for this Association to get at the truth or the bottom facts on all such questions, hence it recommends the rejection of the resolution.

On motion, the recommendation of the committee was concurred in.

The matters presented by the National Legislative Committee and referred by the Association to this joint committee for consideration, was by that committee referred to the General Executive Committee, as being in the province of that committee.

On motion, the report of the joint committee was then adopted as a whole.

AMENDMENTS.

The following amendments were offered:

Offered by Dr. Benjamin, Camden, N. J.:

Amendment to By-Laws: "A committee on statistics shall be annually appointed by the president."

Offered by Guy Hinsdale and L. B. Tuckerman:

Resolved, That Article I, Section VIII, by the By-Laws, be changed, so that the Nominating Committee shall include a delegate to be elected by each one of the component Sections.

Dr. A. J. Coey, Illinois, offered the following amendment:

Amend By-Law, to allow each member the right to record his vote for each officer.

This amendment was referred back to the author with instructions to put it in proper shape.

RIGHT TO PUBLISH PAPER.

Under the head of "Miscellaneous Business," Dr. Denslow Lewis, Chicago, moved that the consideration of the Trustees' report not to publish in THE JOURNAL that portion of the proceedings of the Columbus meeting entitled "The Gynecologic Consideration of the Sexual Act" be made the special order of business for to-morrow's session, and that there be no further interference with the distribution of reprints to delegates only. Seconded.

After making his motion, Dr. Lewis said: "It was my privilege last year to read a paper in the Section of Obstetrics and Diseases of Women, which took the usual course. It was discussed, and it has been published in the Transactions of that Section, but not in THE JOURNAL. One member of the publication committee reported in favor of publishing the paper in THE JOURNAL, while two other members reported adversely. Of these two members, one is unfortunately dead, and the other is no longer a member of the Board of Trustees. The objection of the latter was on a legal ground, and in reply to his objection I have the privilege of submitting the opinions of five representative attorneys of the city of Chicago, among them a former chief justice of the Supreme Court of Illinois.

Dr. Bulkley, at this juncture, rose to a point of order, and said that all new business had to be introduced on Thursday in order to come before the General Executive Committee.

The president ruled that the point of order was not well taken, and said that the resolution would be referred to the General Executive Committee to be considered that afternoon and be voted on in general meeting the following morning.

Dr. Lewis then asked the chair the proper method to pursue to bring the matter before the members of the Association.

President Keen suggested that Dr. Lewis simply offer his resolution to the general meeting, and then the matter be

referred to the General Executive Committee without discussion to be reported on by them and discussed to-morrow.

Dr. Harris, New York, moved that the whole matter be referred to the General Executive Committee with instruction to report at their pleasure, if not this year, next year. Seconded.

Dr. McRae, Georgia, moved as a substitute for the whole matter that it be the sense of the Association that the paper of Dr. Lewis be not published. Seconded.

After a prolonged discussion, which was participated in by Drs. Cotton, Hiett, and Harris, Dr. Reynolds, Kentucky, moved that all restrictions imposed on the paper of Dr. Lewis be removed. Seconded.

Dr. Jackson, Missouri, made the point of order that Dr. Reynolds' motion was in the nature of a substitute, and that it was unparliamentary to move a substitute to a substitute.

The chair decided that this point of order was well taken.

The matter was further discussed by Dr. Love, when Dr. Mayer, New York, rose to a point of order and stated that the subject-matter of the resolution was new business, and that any discussion on new business was out of order, and should be referred to the General Executive Committee.

The president then ruled that the discussion on the resolution was out of order. The resolution was therefore referred to the General Executive Committee to report to-morrow morning.

On motion, the Association adjourned until Friday morning, 10 o'clock.

JUNE 8—FOURTH GENERAL SESSION.

The Association met at 10 a.m., and was called to order by the president.

The secretary read the minutes of the previous general session, which were approved.

Dr. Hoff, Salt Lake City, asked if the Association had taken any action concerning reciprocity between the states having similar laws.

The chair replied that no action had been taken by the Association, but the matter was referred to in the report of the secretary.

Dr. DeVilbiss, Ohio, moved that the By-Laws be suspended, in so far as introducing resolutions on the last day is concerned. Seconded.

The motion was lost.

OFFICERS OF SECTIONS.

The secretary read the list of officers of the various sections, as follows:

Diseases of Children—Chairman, Samuel W. Kelley, Cleveland, Ohio; secretary, Wm. E. Darnall, Atlantic City, N. J.

Obstetrics and Diseases of Women—Chairman, Henry P. Newman, Chicago; secretary C. L. Bonifield, Cincinnati, Ohio.

Surgery and Anatomy—Chairman, A. J. Ochsner, Chicago; secretary, Martin B. Tinker, Philadelphia.

Laryngology and Otology—Chairman, John N. Mackenzie, Baltimore; secretary, George C. Stout, Philadelphia.

Cutaneous Medicine and Surgery—Chairman, W. L. Baum, Chicago; secretary, R. R. Campbell, Chicago.

Nervous and Mental Diseases—Chairman, H. A. Tomlinson, St. Peter, Minn.; secretary, F. S. Pearce, Philadelphia.

Materia Medica, Pharmacy and Therapeutics—Chairman, N. S. Davis Jr., Chicago; secretary, J. N. Upshur, Richmond, Va.

Physiology and Dietetics—Chairman, Elmer Lee, New York City; secretary, R. Harvey Cook, Oxford, Ohio.

Practice of Medicine—Chairman, J. M. Anders, Philadelphia; secretary, W. Britt Burns, Deckerville, Ark.

Hygiene and Sanitary Science—Chairman, Ernest Wende, Buffalo, N. Y.; secretary, J. N. Hurty, Indianapolis, Ind.

Stomatology—Chairman, R. R. Andrews, Cambridge, Mass.; secretary Eugene S. Talbot, Chicago.

Ophthalmology—Chairman, J. A. Lippincott, Pittsburg, Pa.; secretary, E. C. Ellett, Memphis, Tenn.

Pathology and Bacteriology—Chairman, Ludvig Hektoen, Chicago; secretary, Frank B. Wynn, Indianapolis, Ind.

Dr. Dougherty, Chicago, offered resolutions in regard to the late Dr. Truman W. Miller.

On motion of Dr. Reynolds, Louisville, the resolutions were adopted by a rising vote.

Dr. Denslow Lewis, Chicago, moved that that portion of the proceedings of the Columbus meeting of the American Medical Association, represented by his contribution in the Section on Obstetrics and Diseases of Women be published in THE JOURNAL. Seconded.

Dr. A. E. Baldwin, Chicago, rose to a point of order, and said that this matter had been referred to the General Executive Committee as new business and had been thoroughly discussed and considered by that committeee. The secretary of the committee, Dr. Bulkley, was not present, but would report later.

The chair ruled that the matter of Dr. Lewis' motion was not new business, and that if the Association desired to take it out of the hands of the General Executive Committee, it could do so by specific vote.

Dr. Baldwin then asked whether any member of the General Executive Committee could make a verbal report.

The chair ruled that the Association could receive a report from any member.

Dr. Baldwin then said that the resolution of Dr. Lewis, which was referred to the committee, was very fully discussed, with copies of the paper in the hands of the members. After long and very full discussion, the following resolution was adopted:

Resolved, That the General Executive Committee, reposing confidence in our Trustees, who have declined to have the article in question published in THE JOURNAL, recommend to the Association that the request of Dr. Lewis be not granted.

Dr. Sims, New York, moved that the report of the General Executive Committee be adopted. Seconded.

After considerable discussion by Drs. Kelly, Hiett, Love and Lewis, the president put the motion to adopt, and it was carried.

MEDICAL ASSOCIATION OF HAWAII.

Dr. Bulkley, speaking for the General Executive Committee, said: With reference to the report of the secretary, which was referred to the General Executive Committee, it was referred to a subcommittee, and this subcommittee reported that there was nothing in it requiring special action. But a very important matter has been overlooked, viz., application for membership by members of the Medical Association of Hawaii, who are subscribers to THE JOURNAL, and who wish to become members. Now, we have an Executive Council, and I move you, sir, that this matter, which was overlooked, be referred to the Executive Council with power. Seconded by Dr. Reynolds, Louisville.

Dr. Happel, Tennessee, said that, if he was not mistaken, Hawaii is a possession of the United States. This being so, the Constitution provides for the admission of such members whose societies are in affiliation with the American Medical Association.

The secretary stated that this organization in Hawaii was not affiliated with the American Medical Association. It is not recognized by any state society, and he asked that he be given authority to indorse the Medical Association of Hawaii.

Dr. Happel said that the Constitution provides, if that society is not in affiliation with the American Medical Association, then it shall send its Constitution and By-Laws to the Chairman of the Judicial Council, who will examine them and report to the secretary of the Association whether or not they accord with the requirements of our law. If the society is in affiliation with the Association, the secretary will then be authorized to receive them.

REPORT OF GENERAL EXECUTIVE COMMITTEE.

Dr. Bulkley presented the report of the General Executive Committee. At a full meeting the matters referred to it by the Association were fully discussed and action taken as follows:

1. The Section on Pathology and Bacteriology recommends the following resolutions in regard to a pathologic exhibit, which are indorsed by the Committee and recommended for adoption:

Resolved, That the pathologic exhibit be continued from year to year and be placed in the charge of the Pathologic Section.

Resolved, That to take charge of the pathologic exhibit for the next meeting and to formulate a definite plan for future exhibits, a committee of three be appointed by the chairman of the Pathologic Section, subject to the approval of the president of the American Medical Association.

Resolved, That the Trustees be requested to appropriate a sum not to exceed $500 for the pathologic exhibit for the next meeting, if the finances will allow it."

The committee moves its adoption. Seconded and carried.

2. Upon a second special request from the Section on State Medicine, the committee gave a hearing to four of its members in regard to the resolution reported adversely yesterday, and the committee recommend that the action of yesterday be reversed and that the following resolution be adopted, and that the Legislative Committee be instructed to further the same:

Resolved, That the Bertillon classification of causes of deaths be adopted by the United States Government for the mortality statistics of the census of 1900.

Dr. Reynolds, Louisville, moved the adoption of the recommendation. Seconded.

Dr. A. R. Reynolds, Illinois, moved that the recommendation of the General Executive Committee be tabled, which was seconded and carried.

3. Recognizing the great value of having a perfect report of the scientific work done by the Association correctly reported in THE JOURNAL, the committee would recommend for adoption the following resolution, which has been sent to them:

WHEREAS, There are many items of general interest developed in the general discussions of the various section meetings which are lost to the Association at large, when an official stenographic report of these discussions is not taken; therefore, be it

Resolved, That the General Executive Committee recommend that the Board of Trustees be requested to approve and pay bills to an amount not exceeding $1500 annually for the purpose of furnishing an official stenographer for each Section, as well as for the General Executive Committee and the general session of the Association.

The committee would move its adoption. Seconded.

Dr. Reynolds, Louisville, said that this was a matter of great importance to the members of the Association. The proceedings of the various sections should be accurately reported. He regretted that the General Executive Committee had mentioned a specific sum, because it is not known at present what the expense of such reports will be for the next year, or for any future meeting. He hoped the committee would not insist on using any specific figures.

Dr. Happel, Tennessee, moved to amend: *"Provided*, That the stenographers for the various Sections shall be secured through the Board of Trustees and the secretary of the Association and not by the Section officers themselves." Seconded.

The amendment was accepted, and the resolution as amended was adopted.

4. The committee recommends that the Association indorse the work of the Legislative Committee and give their indorsement to the following bills which they have been urging before Congress:

a. H. R. 4483 and S. 4274, regarding an "Increase in the Medical Department of the Army."

b. Bill providing for the appointment of assistant surgeons of volunteers.

c. Bill for the relief of acting assistant surgeons of the United States Army.

d. H. R. 11139 and S. 4171 to protect the Southern coast and therefore the National quarantine service.

e. That the S. 34 Bill for the "further prevention of cruelty to animals in the District of Columbia," in reference to antivivisection, be opposed.

f. S. 559 report calendar No. 427, in regard to the pollution of Potomac water.

On motion, the work of the Legislative Committee was approved.

OFFICERS OF GENERAL EXECUTIVE COMMITTEE.

The officers of the General Executive Committee for the ensuing year are: Chairman, Dr. W. J. Mayo, Rochester, Minn.; vice-chairman, Dr. H. O. Walker, Detroit, Mich.; secretary, Dr. L. Duncan Bulkley, New York. Additional members of the Executive Council, Dr. Frank Billings, Chicago; Dr. B. Alexander Randall, Philadelphia.

The secretary read the following resolution, which was offered by Dr. W. L. Dickerson, of St. Louis.

RESOLUTION ON UNETHICAL PREPARATIONS.

Resolved, That this Section (Section on Materia Medica and Therapeutics) desires to express its unequivocal disapproval of the use by members of this Association of proprietary preparations of unethical composition; and entirely approves the course of THE JOURNAL of the Association and of the Trustees in refusing to such pharmaceutical compounds the privilege of appearing in the advertising pages of THE JOURNAL. This Section expresses the hope that the Committee of Arrangements of the next meeting will exert sufficient vigilance over applications for space for exhibition to exclude all such unethical preparations and prevent their obtaining an apparent indorsement from the American Medical Association.

RESOLUTIONS OF THANKS.

Dr. Dudley S. Reynolds, Louisville, offered the following:

We wish to move a vote of thanks: 1. To Dr. Wynn for the admirable, very interesting, pathologic exhibit. 2. To the ablest president under whose presidency I have sat within the past thirty years, many of whom were models almost of perfection, but not quite; we have had only one perfect president, and that is the gentleman who stands before us. 3. We wish to thank Dr. Philip Marvel and his collaborators on the Committee of Arrangements for the unprecedented and magnificent manner in which they have made provisions for our comfort and pleasure. 4. We wish to thank the press, which has been so generous in publishing our proceedings and so lenient in its criticism of our faults and shortcomings. 5. We wish to thank the ladies of Atlantic City for the grand and enchanting entertainments they have provided for our wives, our daughters, our sweethearts, our friends. 6. We wish to thank the Committee on Registration for the most excellent system, by which we were not delayed, or subjected to the inconvenience or tedium of lining up, as is too often the case. 7. We wish to thank the General Executive Committee for its faithful and patient discussion of all matters referred to it. 8. We wish to thank the chairman of the consolidated committee on Revision of the Constitution and By-Laws, Dr. Happel, for his faithful and painstaking labors. He denied himself both food and—drink. 9. We wish to thank Mr. Young, the owner of this matchless pier. 10. We wish to thank that distinguished, but modest, member of our fold, the editor of the Association journal. He has given us a model journal for all of the civilized world to imitate, if they can. (Applause.)

The resolutions were seconded by Dr. Love, and unanimously carried.

There being no further business to come before the general meeting, on motion, the Association then adjourned to meet at St. Paul, Minn., the first Tuesday in June, 1901.

Societies.

COMING MEETINGS.

Indian Territory Medical Association, Wagoner, June 19-20.

Wisconsin State Medical Society, Milwaukee, June 20.

Third District Branch of the New York State Medical Association, Binghamton, N. Y., June 21.

Oregon State Medical Society, Portland, June 26-27.

Second District Branch of the New York State Medical Association, Schenectady, N. Y., June 28.

Michigan State Medical Society, Mackinac Island, July, 1900.

WARREN COUNTY MEDICAL SOCIETY.—This Society met in Phillipsburg, N. J., May 31. The following officers were elected for the ensuing year: president, Louis C. Osmun, Hackettstown; secretary, W. J. Burd, Belvidere; treasurer, W. H. McGee, Belvidere.

JACKSON COUNTY MEDICAL SOCIETY.—The annual meeting of this Society was held in Wellston, Ohio, May 31. The officers elected for the ensuing year were: president, B. F. Kitchen, Wellston; vice-president, J. L. Gahm, Jackson; secretary, J. J. McClung, Glen Roy.

CAPE MAY COUNTY MEDICAL SOCIETY.—At the annual meeting of this Society, which was held June 1, at Cape May, N. J.,

the following officers were elected: president, A. L. Leach; vice-president, J. S. Douglass; secretary, C. B. Corson; treasurer, Randolph Marshall.

NEW HAMPSHIRE MEDICAL SOCIETY.—The 109th anniversary meeting of this Society was held in Concord, May 31 and June 1. The election of officers resulted in the choice of the following: president, William T. Smith, Hanover; vice-president, D. S. Adams, Manchester; secretary, Granville P. Conn, Concord; treasurer, M. H. Felt, Hillsboro. Fifteen new members were added. The next meeting will be held in Concord, May 16 and 17, 1901.

ASSOCIATION OF AMERICAN MEDICAL COLLEGES.—At a recent meeting of this Association, the following officers were elected for the ensuing year: president, A. R. Baker, Cleveland, Ohio; first vice-president, Thomas H. Hawkins, Denver, Colo.; second vice-president, W. H. Earles, Milwaukee, Wis.; secretary and treasurer, Bayard Holmes, Chicago; judicial council: Parks Ritchie, Minneapolis, Minn. (three years); W. W. Keen, Philadelphia (three years); J. M. Dodson, Chicago (two years).

ASSOCIATION OF MILITARY SURGEONS OF THE UNITED STATES.—This Association held its ninth annual session in New York City, May 31-June 2. Col. Chas. H. Alden, assistant surgeon-general, U. S. A., presided. The address of welcome was made by Major Albert Briggs, of the 65th New York Regiment. The following officers were elected: president, Brig.-Gen. A. J. Stone, Minnesota; first vice-president, Dr. John G. Wise, Washington, D. C.; second vice-president, Brid.-Gen. J. F. Calef, Connecticut; secretary, Col. Charles Adams, Illinois; treasures, Lieut. Herbert Arnold, Pennsylvania.

AMERICAN ACADEMY OF MEDICINE.—The Academy held its meeting June 2, at Atlantic City, under the presidency of Dr. G. Hudson Makuen, Philadelphia. Several Fellows were elected and many interesting papers read and freely discussed. The following officers were elected for the ensuing year: president, S. D. Risley, Philadelphia: vice-presidents, C. M. Culver, Albany; Rosa Engelmann, Chicago; G. G. Groff, San Jaun; W. C. McClintock, Detroit; treasurer and secretary, Charles McIntire, Easton, Pa.; assistant secretary, Alexander Craig, Columbia, Pa. The selection of time and place of meeting was left to the Executive Council.

THIRTEENTH INTERNATIONAL MEDICAL CONGRESS.—According to instructions from Dr. A. Chauffard, Secretary-General of the Thirteenth International Medical Congress, no subscriptions to the Congress will be received after July 15, and no subscriber's name can appear in the official program unless his subscription is received before June 15. The publications of the Congress will consist of seventeen volumes, one of which will be sent gratuitously to each subscriber; that is, the volume containing the papers of the section under which he has inscribed himself. The other sixteen volumes may be purchased at a price of 4 francs per volume, or 45 francs for the series.

WAYNE COUNTY MEDICAL SOCIETY.—Physicians paid tribute to the memory of the late Dr. George E. Frothingham (THE JOURNAL, May 5, p. 1145), at a meeting of this Society, held in Detroit, June 3. Papers were read by Drs. E. B. Smith and J. J. Mulheron, and remarks were made by Drs. Irwin, A. N. Collins, J. E. Clark, Kenneth Gunsolus, W. C. Stevens E. W. Jenks, H. C. Wyman, J. C. Judson, G. G. Gordon, and L. E. Maire, all of whom spoke of the great nobility of character, the kindliness of heart, and the straight-forward, sterling integrity of the lamented physician. Several of the physicians spoke in favor of the society doing something toward a lasting memorial of Dr. Frothingham, and the idea will probably be taken up later on. No business was brought up, out of respect for the memory of the deceased.

Kentucky State Medical Society.

Forty-fifth Annual Meeting, Georgetown, May 9-16, 1900.

(*Concluded from page 1488.*)

President, Dr. William Bailey.

EYE-STRAIN.

DR. A. J. BLINCOE, Bardstown, followed with a paper entitled "Some Facts and Fallacies in Regard to Eye-Strain." He stated that this condition is very general. The following conditions are traceable to it: headache, vertigo, constipation, dyspepsia, "bilious spells," sleeplessness, neuralgia, neurasthenia, cerebral hyperemia, chorea, epilepsy, insanity, anemia, general debility, and obscure nervous troubles.

VISUAL PERIMETRY.

DR. DUDLEY S. REYNOLDS, Louisville, read a paper on this subject, and said that it is important to measure the field of vision, as, if it is narrow, a person is in danger. He exhibited a perimeter made on an ordinary piece of cardboard sheeting by use of which spinal injury could be found, and tobacco and alcoholic peripheral narrowing of the field of vision and color imperception; while there is a central lesion rather than a peripheral if color and not visual trouble is in the retina. In toxic amblyopia scotoma begins on the nasal side; if of central origin on the temporal side. Toxic amblyopia may be present and not discovered until a map of the field of vision is made. It is rarely absent in habitual users of tobacco.

DIABETES MELLITUS.

DR. THOMAS HUNT STUCKY read a paper on this subject, in which he reports six cases. Disturbance of metabolism is the chief cause, and is related to rheumatism and gout. Some cases that are temporary may be relieved by purgation and rest; but if more than 2 per cent. of sugar is present and there are other symptoms, there is reason to believe that it is a true diabetes mellitus. Restricted but wholesome diet, free from pastry; strychnia, with bromid of gold and arsenic; thorough emptying of the alimentary tract, nitroglycerin, five drops of bromid of gold and arsenic, pushed until the full physiologic effect is obtained, is better than arsenic alone, or chlorid of gold and soda alone, as it produces direct cerebrospinal stimulation, and is a cardiac stimulant, reconstructive and antimicrobic.

AN X-RAY BURN.

DR. I. N. BLOOM exhibited a patient, showing an X-ray burn. He had been operated on for a gunshot wound of the abdomen, with perforation of intestine and stomach. The burn was produced after thirty minutes' exposure, with only the image of the Crookes' tube taken on plate. Five days afterward irritation began, and ten days after there was a bullous dermatitis, with great pain and sleeplessness. The patient became a victim of orthoform, but increased the dermatitis. Protonuclein, salicylic acid and diachylon, resinol and nosophen were used unsuccessfully; finally skin grafting was tried, with complete relief from pain four days afterward. The man gained flesh rapidly, and the burn practically healed.

SCARLET FEVER.

DR. LYMAN BEECHER TODD, Lexington, read a paper on this subject. He included in the management the general sanitation, sewerage, ventilation and quarantine; he mentioned as the period of caution, six weeks; and the three chemical agents in disinfection, carbolic acid, chlorid of lime and mercury. The second he considers the best and says, boil fabrics, use carbolic acid on furniture, and rub down the walls with bread, which should be burned afterward.

DR. AUGUST SCHACHNER, Louisville, read a paper entitled "Transplantation of Tendons for Correction of Paralytic Deformities." He stated that the first operation was done in 1881. The extent of the paralysis may be determined by electrical reaction; the preliminary step in forcible correction of the deformity is maintained some time; thorough disinfection, direct suture of tendons, if close; otherwise blunt tunneling, or implanting by a button-hole in the receiving tendon, coapting the sheath by catgut. The post-operative treatment is simple, but the immediate result is not an index of the final; tendoplasty is in the beginning of its usefulness, but must be used only in select cases.

ALKALOIDAL MEDICATION.

DR. FRANK L. LAPSLEY, Paris, read a paper entitled "Alkaloidal Medication, What Is It? What Are Some of the Advantages?" He said that this phase of medicine is spreading rapidly, that granules contain the active principle of plants long in use; and that it has to recommend it, accuracy of dosage, certainty of effect, convenience in carrying, jugulating and cutting short disease, and no taste.

APPENDICITIS.

DR. A. MORGAN CARTLEDGE, Louisville, opened the symposium of papers on this subject with one entitled "Dangers of Operation for Appendicitis After Four Days and Before Quiescent Period." Of the patients who die, 90 per cent. have a fulminating type of disease in which case operation must be done in twenty-four hours after the attack. In fifty cases of general septic peritonitis, two have recovered without operation. There is no means of knowing the course in a given case. If purulent accumulation is walled off, wait until after the third day of attack; if there is rupture in the peritoneal cavity, operate at once. He has never seen abscess rupture in cavity but twice. A patient recovers from general suppurating peritonitis without operation as well as with it. An interval operation is indicated when there has been an unmistakable attack of appendicitis, but we must not operate too soon after a severe attack with adhesions. With light diet and little exercise the mortality from interval operations is one-half of 1 per cent.

IMPORTANCE OF EARLY DIAGNOSIS IN APPENDICITIS.

DR. ARCH. DIXON, Henderson, said that diagnosis is not always easy, but many are clear; the temperature is variable, from normal to high. He should differentiate from colic, from indigestion, ovarian disease, pus tubes, extrauterine pregnancy, peritonitis from leaking pus tubes, and nephritis. Failure in diagnosis occurs when the initial symptoms are lost from the injudicious use of opium. Appendicitis is dangerous in all forms and stages.

REPORT OF CASES OF APPENDICITIS.

DR. W. A. QUINN, Henderson, read a paper entitled "Report of Seven Cases of Appendicitis with Remarks." He said it has no medical side in any phase, and that the laity and general profession are rallying to surgeons in their belief. It is attractive and satisfying surgery, and the results are pleasing. The operation of the present hour is the operation of the future.

DR. J. G. SHERRILL, Louisville, said that it sometimes can be handled in other ways than by surgery; that a slight inflammatory condition of the lining membrane may get well, but if there are three coats involved, abscess forms, and surgery is indicated, and that early diagnosis is of special advantage. Where appendicitis is suspected, opium should be avoided and hot or cold applications used. Typhoid fever may be confounded with tubercular peritonitis. The danger is increased after the fourth day.

DR. AUGUST SCHACHNER, Louisville, said that discussions on this subject are generally re-hashes, and important points lost. The pivotal point is a question of judgment; there is a time to go in and a time to stay out. Early operation should be a day or two from the onset, not from the diagnosis, which may be delayed a week, and the best time is very early, or in the quiescent period. Operation should not be as soon as diagnosis is made except when diagnosis is made early enough.

DR. J. O. JENKINS, Newport, said that appendicitis may be operated on with some safety in the beginning, but if late, it is cruelty, if not murder. He believes in medical treatment, for in twenty-five years, he never had a patient operated on. The diagnosis is not always easy; there are generally two or three days of treatment for colic before the physician sees it.

MUCOUS DISEASE.

DR. PHILIP F. BARBOUR, Louisville, read a paper on this subject. He said that no pathologic lesions were discoverable, not even micro-organisms; that it may last a week or more; and show malnutrition, interval discharge of mucus, skin dry, brown discoloration, restless sleep, nausea or vomiting, capricious appetite, distended abdomen, change in disposition, scanty urine, abnormal tongue, sweet breath, pain in bowels, prostration and no fever. It is differentiated from tuberculosis by the jelly-like substance or worm, that looks like mucus. Inherited gout or uric acid tendency must be combated, and the formation of mucus checked; nitrogenous foods should be used, but no fats or carbohydrates; the patient should have good hygienic surroundings, and sea-salt bathing. Bitter tonics and small doses of bismuth should be given. The digestive agents are phosphate of soda, hydrastis and sanguinaria, and arsenite of copper.

HERNIA OF BLADDER.

DR. W. O. ROBERTS, Louisville, considered this subject and reviewed a case already reported in the *Louisville Monthly Journal*, which was the only case he had seen, although literature shows it is met with frequently. It may be intra-, para- or extraperitoneal; the latter least common. If there is pain and tenderness radiating toward the bladder in irreducible hernia, diagnosis may be easy. Two pathognomonic signs are ability to distend through the bladder, and introduction of the curved sound. The diagnosis is not made in a majority of cases prior to the operation.

CRETINISM.

DR. DAVID M. GADDIE, Hodgenville, calls this a rare form of idiocy, which is myxedema when it occurs in adult life. The degree of symptoms is dependent on the condition of the thyroid; climate, altitude, food, water have nothing to do with causation, though heredity plays a part. Grafting of the thyroid gives relief.

RATIONAL THERAPEUTICS OF TYPHOID FEVER.

DR. R. A. BATE, Louisville, presented a paper on this subject. He said that the clinical phenomena are due to toxins and not to bacilli; also that successful therapeutics must control toxemia; Nature produces enzymes. Thyroid antitoxin, as a prophylactic, renders susceptible individuals immune; other therapeutics rendered toxins less virulent. The therapeutic agents mentioned were the Brand bath, salicylates, nuclein group, calomel, light diet, and essential oils.

VACCINATION.

DR. J. C. MOSELY, Henderson, read a paper entitled, "Vaccination Prior To, During and After Smallpox." He said that the active elements of vaccin are not known; isolation can not be relied on; only vaccination and re-vaccination, since it never loses its efficiency. Out of 200 cases previously vaccinated, in only five did the smallpox reach the pustular stage, though in one case it had been fifty-two years since the vaccination. Vaccinated after exposure, the smallpox will be very mild; vaccinated the day after the beginning of symptoms, both will proceed, but the smallpox will be much less severe, and the vaccination not modified.

DR. B. W. SMOCK, Louisville, said that successful vaccination produces immunity against any kind of smallpox, and that the doctors are the greatest trouble in enforcing sanitation and compulsory vaccination.

OPIATES AND ETHICS.

DR. BARTON W. STONE, Louisville, read a paper on this subject. He said that the abuse of opium leads to reckless views of life, that they who use it have little remorse for crimes, that it engenders mendacity, dishonesty of speech and of action, weakening of religious responsibility, diminution in respect for age, law, authority and conjugal relations, laziness, self-indulgence, conceit, garrulousness, mischief-making, comparative imbecility and shrewdness in getting opiates for needs. The nervous system, alimentary tract, kidneys and liver lose their functions until the sufferer's life goes out. Cocain has the direst consequences, as those who use it earliest develop the paranoiac type of insanity and the effect persists for months after withdrawal. Opium is for pain and cocain to increase pleasures and stimulate failing energy. Doctors should try to stop the practice and are culpable if they ingraft the habit; if the patient is given opium he should be kept in ignorance of its use, for when once well established the habit is almost incurable. Smoking of opium is the least injurious form.

GONORRHEA VS. SYPHILIS.

DR. W. R. BLUE, Louisville, presented a paper on this subject. He mentioned the popular view of the laity regarding the two diseases, and said that they look on gonorrhea lightly and collapse if told they have syphilis. Syphilis is relatively harmless; deaths from it comparatively *nil;* it kills its tens, while gonorrhea kills its thousands. Legislative enactments to prevent its spread are not effectual because not supported by the public, but when they know how great a scourge gonorrhea is, its prevention will be included among other matters under sanitary control, as meat, milk, water, plumbing, etc. The doctors should enlighten the people, and parents their children. Things will be different when gonorrheal pus tubes mean disgrace to a husband. Clean husbands should be demanded as well as clean wives.

THE JOURNAL OF THE
AMERICAN MEDICAL ASSOCIATION.
61 MARKET STREET, - CHICAGO.

SATURDAY, JUNE 16, 1900.

PRESENCE OF NUCLEATED RED CORPUSCLES IN THE CIRCULATING BLOOD IN MAN.

Nucleated red corpuscles were first found in the blood in cases of leukemia, after death, and subsequently also in the circulating blood. In other instances, however, they could not be demonstrated. Their presence was at one time believed to be indicative of medullary leukemia, and attributed to abnormal activity of the bone-marrow. As experience increased nucleated red corpuscles were found also in the blood in cases of pernicious anemia, and even in cases of secondary anemia, of varying intensity. It was then demonstrated experimentally that nucleated red blood-corpuscles occur in all diseases attended with rapid disorganization of the blood, and their presence must be looked on as indicating insufficiency of the blood-generating organs, which become incapable of neutralizing the increased loss with normal red cells. The presence of megaloblasts, with or without nuclei, bespeaks grave disturbance in hemogenesis. The explanation of the anemia secondary to leukemia is not clear. It has been thought that the hemorrhages that frequently occur or the leukemic process itself or perhaps some condition of the bone-marrow may be the causative factor. The presence of nucleated red corpuscles in the blood is not constant in cases of leukemia, nor even in the same case. This circumstance has been attributed to exhaustion of the regenerative power of the blood and to failure in the power of the heart.

Jünger,[1] who has made a careful study of the blood in ten cases of leukemia, states that nucleated red corpuscles can be detected in unstained preparations, though care must be taken not to mistake for them red corpuscles the seat of degenerative processes. The central nuclei of the former are surrounded by a peripheral zone of hemoglobin. The nucleated reds can be readily found, because they soon become detached from the rouleaux and lie free in the field. On several occasions changes in the position of the nucleus from the center to the periphery, as well as movement within the nuclei itself, were observed. Permanent stained preparations were made by exposing smeared cover-slips, dried in air and heated, to the action of .5 per cent. aqueous solution of eosin, for two or three minutes, next rinsing in water, then exposing to the action of a saturated watery solution of picric acid for twenty-four and then to the action of dilute solution of hematoxylin for from twelve to twenty-four hours. The specimen was then rinsed in water, dried in air and mounted in Canada balsam. Any excess of stain was removed by means of .25 or .5 per cent. hydrochloric-acid alcohol. Thus treated, the red blood-corpuscles appeared reddish brown, their nuclei deep blue, the protoplasm of the leucocytes in part brownish, in part rose-tinted. The granulations of the eosinophile cells were distinctly visible. The network of chromatin filaments appeared sharply defined.

The largest number of nucleated reds found were normoblasts of variable size. Microblasts were less common and megaloblasts more numerous. Generally a single nucleus was present; often, however, there were several and in some even as many as four free nuclei. As a rule, the nuclei were round, but not rarely oval. The nuclei of the megaloblasts were generally oval and rather large, occupying almost three-quarters of the cell. While the nuclei of the normoblasts and the microblasts stained deeply, those of the megaloblasts stained more feebly. The nuclei were in part excentric and in part central. When the nucleated red blood-corpuscles were present in small numbers, the nuclei exhibited no peculiarity, being round and uniformly and deeply stained. If, however, the nucleated red cells were more numerous, the nuclei not rarely presented other shapes and even mitosis in all stages. It is established that red blood-corpuscles are formed by mitotic division of nucleated young cells in bone-marrow, although it has not been definitely determined that the nucleated reds originate here. The taking up of hemoglobin during mitosis, by cells previously free from hemoglobin, was not observed.

All stages of cell division occurred in red blood-corpuscles presenting the same tint and shape as non-nucleated red corpuscles, and in no instance were any structures found that could even approximately be considered transitional forms between white and red corpuscles. Karyokinetic red corpuscles could be most sharply differentiated from karyokinetic leucocytes. The karyokinetic figures of the former stained much more deeply with hematoxylin than those of the leucocytes; the cell-body appeared more delicate and fragile and the entire cell more plastic than that of the karyokinetic leucocyte. The nuclei of red corpuscles passing from kinesis to the resting stage, and which in turn undergo division, presented a typical appearance. They were large, at times occupying half the body of the blood-corpuscles, with a delicate nuclear membrane, which appeared thickened only in places from which chromatin filaments passed off. Within the nucleus was contained a rather loose, irregular network of delicate chromatin filaments. Similar thickenings were present at the points of intersection, as on the membrane, and they were often continued to other points of intersection, so that uniformly broad bands appeared woven into the delicate network. Such bands often seemed to be coherent filaments. Megaloblasts generally presented, in their usually oval, large nuclei, a closer network of chromatin filaments, but otherwise the conditions were the same as in the nuclei of normoblasts.

1. Deutches Archiv f. Klin. Med., B. lxvii, H. 1 u. 2, p. 109.

In the process of multiplication of the chromatic substance preceding cell-division the individual filaments of the close network become thickened, and enlargements appear at the periphery of the nucleus and at individual points of intersection. Further on, the delicate filaments of the dense convolution become shortened and thickened and collected in loops. These become rearranged and form the mother aster. The stage of metakinesis was observed but once, while all subsequent ones were more common. In the stage of daughter asters the two halves of the nucleus were almost always more deeply stained than in the preceding one of karyokinesis. At times these halves were traversed by a number of dark filaments extending into the interior of the cell. The individual nuclear segments presented a concavity toward the pole, and a convexity toward the center of the cell. Often, however, the segments were irregular in shape, with a few short processes on the central aspect, while the remaining border was partly smooth and partly serrated.

The various stages of cell division described were observed in red corpuscles not larger than normal, but not in megaloblasts, although these were present in considerable number, and the division has been described by others. The impression was gained that karyokinesis of the nucleated red corpuscles occurs in the circulating blood without especial peculiarity. Although opinions differ as to the fate of the nuclei after having passed from the state of kinesis to the resting one, it is agreed that the nuclei that do not undergo division gradually lose the trabecular arrangement of their chromatin filaments. These move closer together and the nucleus becomes smaller and stains more deeply. Often lighter and darker areas are distinguishable in the nucleus, and, particularly at the periphery, deeply stained short or long bands, frequently with a radiate arrangement, stand out distinctly, until eventually these also disappear and finally the nucleus presents the appearance of a uniformly and deeply stained mass. The nucleus now exhibits a marked tendency to undergo all sorts of changes in shape, being at times round, at other times oval and at still others constricted in several places. Occasionally small portions of the mother nucleus become detached or the nucleus breaks up into two, three, four or even more small segments, which frequently cohere. In many blood-corpuscles the nucleus was wholly peripheral, with one-half already outside. In others, one segment was outside, others appearing to remain behind or to be about to follow. At times the individual segments seemed bound together, at times separated.

The polynuclear red blood-corpuscles have been considered pathologic, but they have been found in human embryos and have been thought to represent a normal phase in the development of non-nucleated red corpuscles. Free nuclei were found rather frequently, and they have again been observed to become surrounded by protoplasm and to imbibe hemoglobin and thus to form new nucleated red corpuscles. It is possible, however, that these appearances are due to artefacts. It has further been held that the nuclei undergo absorption within the body of the cell.

DENTAL EDUCATION.

Medical educators will be deeply interested in the symposium on dental education, presented before the Section on Stomatology at the Atlantic City meeting of the AMERICAN MEDICAL ASSOCIATION. This symposium deals with every phase of the subject. The paper by Dr. N. S. Davis[1] has especial interest, and that the views therein, which were advanced more than four decades ago, are of more value to-day than when first expressed is shown in later discussion of the same topic by others. On perusal of these papers, it will be generally admitted that advanced education is necessary for the successful practitioner of stomatology at the present time, which is gaining ground among dentists, and the term for their science is an evidence of the advanced conception, held to-day by many dental societies, of the status of dentistry as a specialty of medicine. The dentist, as shown by this term, has ceased to be a mere tooth carpenter and become a medical scientist; dental science has brought diseases of the mouth, jaws and teeth so obviously under the domain of general pathology that somatic problems elsewhere presented in the body are best and easiest studied in the mouth. This is particularly true of teratology, embryology, excessive and arrested development, especially as related to race advance and degeneracy, as has been shown by Talbot. Factors of acquired degeneracy, like the drug habit, mercurialization, etc., neurotrophic and diathetic states have nearly all their pathologic phases outlined in the disease interstitial gingivitis (Talbot).

To enable the dental student to successfully treat these lesions, he should have a broad training in the fundamental branches in medicine, such as anatomy, physiology, pathology, bacteriology, materia medica and chemistry. It will not do to teach these sciences in a dental school, even by the same teachers, because the student acquires the idea that they are not necessary to a successful practitioner of dentistry. Dentistry, as practiced to-day by the better practitioners, is a part of general medicine. The same requirements should be exacted for the entrance of the dental student as for the medical. They should be taught in the same class and in the same manner. The final examinations should be as exacting for one as the other, and no distinction should be made between them. The extension of the course from three years to four of nine months each will give ample time to equip the dental student. In these days of trusts for the purpose of reducing expenses there is no reason why universities and medical schools should not reduce expenses.

1. THE JOURNAL, p. 1519.

There are forty-six dental colleges recognized by the National Board of Dental Faculties and state boards of dental examiners. Twenty of these are connected with universities, eleven with medical colleges and the remainder are independent. It is therefore a very easy matter to reorganize the teaching methods of these college faculties along lines advanced by Dr. Davis. The others would wisely follow. The technique in most of our dental schools is nearly perfect from the standpoint of the narrow lines on which dentistry has been taught in the past sixty years.

Chairs on stomatology should be a part of every medical faculty. Through the instrumentality of Dr. Davis, chairs on dental and oral surgery were added to every medical school in Chicago, in 1880. Instruction has been given to medical students each year, and no medical college can do justice to its graduates without such a course. Universities should bring their dental departments up to as high a grade as the other departments of learning. This can best be done by making stomatology as necessary a part of medical education as is general surgery or ophthalmology.

The object of these papers is to impress on both medical and dental teachers the necessity of a broader education for medical and dental graduates.

ARTIFICIAL SERUM SUBSTITUTES.

Blachstein[1] emphasizes that the phenomena of agglutination are valuable in other ways than shown in serodiagnosis. We are enabled by agglutination, to detect special disinfectants—"agglutino-disinfectants"—that may conveniently replace bactericidal serums, and thus prove to be true serum substitutes. Impressed from the first that agglutination is a chemical process, the idea seemed plausible to Blachstein that other substances besides pure serums might produce agglutination. In 1896 Blachstein showed that a dilute solution of chrysoidin has the power to agglutinate cholera vibrios, the reaction being quite diagnostic and associated with destruction of the vibrios, so that chrysoidin could be used as a practical and efficient disinfectant and preventive of cholera. These statements gave rise to much discussion among bacteriologists, and dissenting opinions were freely expressed. Some claimed that certain races of cholera vibrios are agglutinated by a dilute solution of chrysoidin while others are not. Blachstein now states that all the various races are agglutinated by chrysoidin provided they have been planted on neutral media. The fact that vibrios grown on alkaline media do not give the chrysoidin reaction is explained by the assimilation of alkali, which is given up again in the distilled water in which the emulsion is made; and any alkaline body renders chrysoidin inactive. It seems probable that virulent vibrios are more tenacious of alkali than vibrios grown for a time on alkaline media. Hence the contention by some that virulent vibrios do not give the chrysoidin reaction. Blachstein claims that bacteria that, planted on neutral media, do not show the chrysoidin reaction are not cholera vibrios; the only exception being the historic Finkler-Prior vibrio, which reacts positively both when grown on alkaline and on neutral soils, being apparently unable to assimilate alkali. Engels has pointed out that malachite-green and safranin are also cholera agglutino-disinfectants; they are, however, poisonous substances. Chrysoidin, malachite-green and safranin are all basophile substances, but only those basophile substances are cholera-agglutinins that contain a C_6H_5 group. Chrysoidin is a disinfectant and agglutinin down to a dilution of 1 to 10,000 of distilled water; greater dilutions, as 1 to 20,000, produce agglutination but no destruction of the vibrios. This indicates that the limits of disinfection and agglutination do not coincide.

The possible practical outcome of these interesting observations is found in the following statement from Blachstein: "If I had again the privilege of witnessing a cholera epidemic, I should recommend a chrysoidin solution (1: 1000) to be taken internally in doses of 20-50 c.c. This would serve to disinfect the mouth, the upper part of pharynx and stomach, if there should be an accidental infection." He suggests that it could also be used to sterilize fruit, vegetables, and water, and could be added to charcoal filters.

The fact that we have in chrysoidin a test for cholera vibrios that surpasses the serum test in scientific accuracy and practical applicability, chrysoidin being a chemical body of absolute purity, readily dissolved in standard solutions, must be regarded as an important step toward securing efficient serum-substitutes. Malvoz has taken up the study of artificial typhoid agglutinins, and every one recognizes at once the great importance of having efficient typhoid agglutino-disinfectants. If agglutination is a purely chemical process, it seems plausible to expect that such substances may be found for many pathogenic germs.

1. Serum Substitutes, with Especial Reference to Asiatic Cholera. Contributions to the Science of Medicine by Pupils of W. H. Welch, pp. 890-901.

A HOPEFUL DECISION.

A Wisconsin police magistrate recently fined two "Christian Science" healers for illegal practice of medicine. The usual defense, that their methods did not constitute the practice of medicine, did not succeed with the judge, who held that any kind of treatment of the sick for a fee comes under the provisions of the law; that when "Christian Science," which as a religious belief is entitled to toleration, undertakes to treat the sick it should do so under the sanction and conditions of the law, and failing this, its practitioners are liable to its penalties. The decision will probably be appealed and may go to the supreme court and become a leading case. If that should occur, we have no doubt that the opportunity to ventilate the methods of this delusion will be

fully improved and we trust the higher Wisconsin court will follow the same course as has this police magistrate.

GASTRIC HEMORRHAGE.

The subject of gastric hemorrhage in its various forms is thoroughly discussed by Dr. Rodman in his Oration on Surgery, printed in this week's JOURNAL. He favors early rather than late operative interference in case of gastric hemorrhage from ulceration, save in the acute cases and first hemorrhages, the uncertainty of diagnosis being in itself a strong argument for this course in many cases. When all medical measures have been tried and have failed, he believes better results will follow operation than the policy of inaction usually adopted, and if there is gastrectasis he holds that the indication is absolute. This is the surgical point of view, and it may be that many physicians will still hesitate to recommend such formidable operations as pylorectomy or partial gastrectomy when there remains any hope whatever from delay. Dr. Rodman expressly repudiates advocacy of any general or universal resort to surgery, and the difference of opinion is after all only one of degree; nearly all would advise operation as a last resort. The chances for surgical success in cirrhotic hemorrhage are, he admits, less promising than in the case of ulcer, but he still believes that in these cases also, within proper limitations, surgical intervention may be properly considered. Considering the frequent difficulty of diagnosis between these two etiologic factors, it would be less fortunate if in one of them operation was absolutely contraindicated. A popular notion, that of vicarious gastric menstruation, is not supported, even if not exploded, by his researches, and the accident of postoperative hematemesis is also shown to be a surgical rarity, though Rodman does not question its occasional occurrence in septic states of the blood. The address as a whole gives an excellent statement of advanced surgical opinion on this subject of the treatment of gastric hemorrhage, and the views expressed are in the main those best supported by statistics and the authority of such surgeons as Mayo Robson and others who have recently written on the subject.

THE TUBERCULIN TEST.

A recent occurrence in an eastern state has been made a text for some anti serumtherapeutists. A veterinary surgeon, in using the tuberculin test on a calf, accidently pricked himself and developed tuberculosis, which caused his death six months later. It is quite possible, as has been suggested, that he had already unconsciously contracted the disease and the involuntary inoculation only revealed it, but it is also possible that it awakened it into the excessive activity that produced the rapidly progressing disease. This latter possibility, while it is practically denied by some authorities, is nevertheless one that deserves serious consideration, and the conservative position of Dr. Knopf on the subject of the tuberculin test in the human subject is, on the whole, the safest to follow. When a man has only latent tuberculosis—some old practically isolated focus—and is in apparent normal health, it may well be that there is no advantage in stirring it up, if by so doing any risk is taken. He is not, in that condition, a public danger and may never be—his ignorance is bliss to him and it is folly to make him wise. There are other diagnostic methods that meet all needed requirements and are beyond the suspicion of any danger to the individual, though less rapid and more laborious for the diagnostician. The suggestion, credited to a distinguished New York authority, that the individual resistance in this case was probably already unconsciously weakened, does not materially affect the case; if a diagnostic method can produce such effects on a weakened system, it had better not be used. The case, if correctly reported, furnishes a strong argument against any general application of the tuberculin test for diagnostic purposes on human subjects. It is well enough for cattle, but while generally harmless in man, there are at least one or two other cases on record of troublesome results from its use.

PECULIAR STATUS OF NEBRASKA MEDICAL LAW.

A recent decision of the Supreme Court of Nebraska practically annuls an important feature of the medical registration law of that state, and is the result of a rather curious state of affairs. The constitution of Nebraska prohibits special state boards, and to get around this the legislature constitutes them out of holders of legalized existing offices. The State Board of Health therefore is made up of the governor, the attorney-general, the superintendent of public instruction and the treasurer. The real duties of this board are carried out by medical secretaries who have, however, only a deputized authority. One Dr. Drasky applied for a certificate to practice, but was refused by the board of secretaries on the ground that his diploma had not met the conditions of the law in being the outcome of a four years' course. He appealed to the official board of politicians, who told the "secretaries" to grant him the certificate, and at that point a local medical college interfered and obtained an injunction against the Board so doing. Appeal was carried to the supreme court and the injunction was dissolved: the judge, in reversing the decision held that the law governing the practice of medicine was a police measure and not an act to protect medical schools or practitioners from competition. An incorporated college can not, therefore, maintain an action to restrain the State Board of Health from issuing a certificate, and an injunction will not lie to annul its decision after it has placed its construction on the law. This seems to leave the matter, as far as any possibility of correcting matters by injunction is concerned, entirely in the hands of the State Board. The question arises: what remedy would there be if they should choose to put an absolutely nugatory construction on the law? and also whether the judges' decision would have been any different had there been no chance for an inference of self-interest on the part of the persons asking for the injunction. As the case now stands, medical registration in Nebraska is in the hands of non-medical elective officers whose sense of their responsibilities is evidenced by their nullification of an important clause

in the law, and, according to the supreme court, there is no appeal.

TEXAS AND "DIPLOMA MILLS."

A Texas diploma mill, calling itself the "New York Medical College," was organized and incorporated last November and has just been permanently closed by the state authorities. It appears to have been the project of an enterprising firm composed of a man and his wife, who associated with themselves certain other individuals —or at least their names—and proceeded to make M. D.'s, after the approved Armstrong & Co. (Chicago) method. The following letter is one included in the petition for injunction by the attorney-general, and is interesting evidence of the educational and literary qualifications of the corporation:

SAN ANTONIO, TEXAS, March 6, 1900.

Dr. G. V. Westgate:

DEAR DOCTOR:—Enclosed find Literature as per request. As to legality of our Institution See the article by Ogden & Terrell of this city our attorneys.

If you are practicing We are permitted to decorate you Without you attending school, providing you fill out Blanks sent you satisfactory. if you desire to do so send 1/2 fee and Blanks filled O. K. if O. K. we will send Diploma C. O. D. for Bal. N. Y. M. C. 201 Ave. C.

How many would-be M. D.'s have been "decorated" by this concern in its brief but enterprising career is unknown to us, but Texas appears to have been a good field for the Chicago bogus diploma dealers. According to an editorial in the *Texas Medical News,* from which journal we take the above facts, there were registered in Tarrant County, Texas, alone, 26 diplomas from Chicago's "Independent Medical College," out of a total of 41 in 1898, 115 out of 149 in 1899, besides 14 from the "Metropolitan Medical College"—now in trouble[1]—and 2 from the "International Health University." From Jan. 1 till April 12, 1900, there were 29 diplomas registered altogether, and of these 20 were from the Metropolitan and 2 from the "Independent Medical College." The medical laws of Texas have surely been lax in the past, but the authorities have certainly shown a commendable promptitude in nipping early, if not exactly in the bud, this Texas imitator of Armstrong and Buchanan.

COMPULSORY NOTIFICATION OF TUBERCULOSIS.

According to the newspaper reports, Boston is undertaking to treat tuberculosis as a notifiable contagious disease and to exercise a more rigid sanitary control over it, with a view to diminishing if possible its excessive mortality in that city. The question of the advisability of such a measure as compulsory notification of this disease has been long discussed and the medical profession is far from being a unit in its favor. We may admit that consumption is contagious and yet believe that notification should not be made compulsory, for obvious reasons, and it will be of interest to see how fully and willingly the Boston physicians will assist in the experiment to be tried there. Its success will be largely in their hands, for it will be difficult to enforce the rule without their hearty co-operation. If this be lacking, and it seems very possible that the notification may not be quite universal, the results may not be altogether as instructive and effective as is anticipated. One thing, however, should be done—the general public should be educated to understand that the notification in tuberculosis does not mean all that it does in the case of smallpox or diphtheria, and that there is no necessary peril in casual contact with a consumptive. At present we are perhaps creating an unreasonable fear of the disease in many naturally pathophobic individuals, that leads, as Dr. Bowditch and others have shown, to actual inhumanity. For this reason, compulsory notification might in some cases add seriously to the hardships of those already afflicted, without really any justification for it. There is one unobjectionable feature, however, of the Boston proposition, viz.: the disinfection of premises after deaths from tuberculosis. This feature could easily be adopted elsewhere, when the other one of compulsory notification of cases in the living is not deemed as yet expedient. In the meantime, there are many unfortunates who will be thankful that they do not live in Boston.

1. See last week's JOURNAL p. 1497.

SURGICAL RELATIONS OF THE BACTERIOLOGY OF THE UPPER PORTION OF THE ALIMENTARY CANAL.

The relations of the bacterial flora of the various parts of the intestinal canal to the consequences of traumatic and pathologic perforative lesions of the stomach and bowel have probably not received the attention that the importance of the subject merits. A good beginning has been made by the recent study of Cushing and Livingood.[1] As the result of experimental investigation and study of suitable clinical material, they find that in the upper part of the intestine the bacteria are more scanty than in the lower portion. The varieties of bacteria present are not definite or constant, inasmuch as the character of the food taken into the stomach plays a signal part in determining the kind and number of organisms present at a given time. The germicidal action of the gastric juice is rather limited and some bacteria, such as streptococci, escape its action more readily than others. During the latter part of digestion and after fasting, the investigators mentioned found it difficult to recover microbes from the mucous membrane of the stomach, duodenum, and even of the jejunum as far down as the canal was completely emptied. From this follows the important practical deduction that it is of great value, before operating on these parts, to rid food of micro-organisms as far as possible, by thorough sterilization and also to render the upper part of the digestive tract empty. Peritonitis following intestinal wounds assumes its special characteristics from the bacteria in the canal at the site of the lesion. Scanty and relatively harmless bacteria naturally favor the prognosis of such conditions. There is surely much to be done for the patient by following the indications mentioned; and further studies will undoubtedly bring to light many important details in the relations of the bacteriology of food and of the intestinal contents to the

1. Contributions to the Science of Medicine by Pupils of William H. Welch, 1900, 543.

consequences of intestinal lesions, operative or accidental. It is probable that too little attention has been given to the nature of food as regards the bactericidal content, and also to the condition of the mouth, in the preparation for severe operation on the stomach and adjacent parts of the digestive canal.

EXPERIMENTAL CIRRHOSIS OF LIVER.

The etiology of cirrhosis of the liver still presents many obscure points. Investigators have endeavored to experimentally produce cirrhosis of the liver in animals, but so far the success has been rather indifferent. It is true that certain chemical and toxic substances have been found to induce cirrhotic processes in the livers of animals, but it does not seem that any method has yet been devised that will reproduce at will, in any degree of completeness, the various changes observed in human cirrhosis. Injurious agents that act acutely and severely on the liver do not necessarily result in consecutive connective-tissue proliferation, because the liver has power in a high degree to regenerate after necrosis and degeneration. The general opinion is that cirrhosis develops from the action of substances that operate in a chronic manner and in some way induce the growth of fibrous tissue. The peculiarities of the tissues of the individual undoubtedly play their part in the genesis of cirrhotic changes in animals as well as in man. All observations throwing light on the development of cirrhosis of the liver are welcome. Weaver's recent study[1] of cirrhosis of the liver in the guinea-pig, produced by a bacillus and its products, is very suggestive of what may also occur in man. The bacillus appears to belong to the colon group. It was isolated from a guinea-pig that died spontaneously. Unfortunately, the organism early lost its virulence, but enough experiments were made to show the connection between the necrotic and proliferative changes. The lesions were produced equally well by inoculation of living cultures and devitalized ones. In the animals dying early, degenerative changes only were present in the liver; at a later period, connective-tissue proliferation was associated with necrosis; and in still further advanced stages, cirrhosis had entirely replaced the degenerative changes. These effects were obtained only in guinea-pigs, showing the influence of species. It would be of great interest in studies of this kind if animals could be kept alive for some time after connective-tissue growth had been induced, in order to observe the further course of the hepatic changes.

1. Contributions to the Science of Medicine by Pupils of William H. Welch, 1900, pp. 297-305.

ETIOLOGY OF SCURVY.

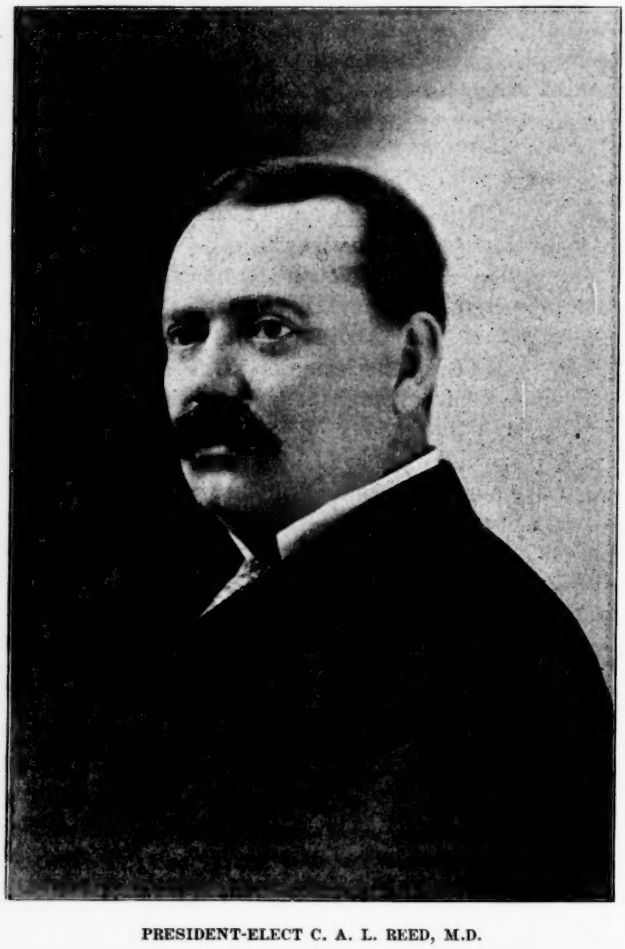
It is fortunate that scurvy is much less common than it once was, although every now and then outbreaks occur, and sometimes under circumstances amid which the disease would ordinarily not be expected. That the disorder is a dietetic one there seems no reason to doubt. It has for a long time been thought to be dependent on an absence from the food of some substance, or substances, contained in fresh vegetables and fruits, and, accordingly, lime-juice has been recommended and extensively employed for its prophylaxis. The disease has also been attributed to deficient ventilation. Recent observation, however, has shown, on the one hand, that scurvy may occur despite the use of fresh vegetables or lime-juice and the provision of adequate ventilation, and on the other hand, that it may fail to develop under the reverse conditions; so that it is necessary to seek for other influences to explain its occurrence. An exceedingly interesting and painstaking investigation by Jackson and Harley[1] is calculated to contribute to this end. From personal experience, and from the observation of others, Jackson came to the conclusion that the development of scurvy is attributable to the use of tainted animal food, and its prevention can be secured by the use of wholesome meat. In order to confirm or correct this opinion, feeding-experiments were undertaken with three groups of monkeys, to one of which rice and freshly opened tinned meat and maize were administered; to the second the same, except that the meat had been permitted to become tainted; and to the third the same as the second, except for the addition of an apple or a banana. While diarrhea and loss of weight occurred in all of the animals in the first group, there was an absence of blood and mucus from the stools and of sponginess of the gums, such as were present in the other two groups of cases. A comparison of the blood from two of the monkeys in which the symptoms of scurvy appeared with the blood from a healthy monkey, showed the number of red corpuscles decreased in the former, the number of leucocytes greatly increased, the percentage of hemoglobin diminished, the specific gravity lowered, the water increased, the solids and the proteids diminished, the fibrin increased, the coagulation-time and the amount of nitrogen diminished and rash increased. Accepting the symptoms developed as evidence of the existence of scurvy, it would seem demonstrated that this disease may occur from using tainted meat, in spite of the administration of fresh vegetables, and that the absence of the latter is alone not sufficient to cause the development of the disease. An explanation is wanting, however, for the cases in which scurvy appears when meat is not taken in any form, and for those found in children. On the other hand, some confirmation is indirectly given to the view here expounded, by the fact that meat-juice has been found useful therapeutically under the conditions last named.

1. The Lancet, April 28, p. 1184.

PRESIDENT-ELECT C. A. L. REED, A.M., M.D.

Charles A. L. Reed, A.M., M.D., of Cincinnati, the president-elect, although a comparatively young man, has been a conspicuous member of the AMERICAN MEDICAL ASSOCIATION for a number of years. In 1891 he was Chairman of the Section on Obstetrics and Diseases of Women, and at the time of his election to the presidency he was serving his second term as a member of the Board of Trustees, in both of which capacities he exercised vigilance and industry in promoting the welfare of the Association.

Dr. Reed was born in 1856, the second son of Dr. Richard Cumming Stockton Reed and Nancy (Clark) Reed. He was educated in the schools of Ohio and holds the degree in arts from Miami University, Oxford. His medical education was received in the Cincinnati College of Medicine and Surgery, in which institution his father held the professorship of materia medica and therapeutics for more than twenty-five years. After his graduation he engaged in general practice and began medical teaching soon after he received the doctorate. He lectured in his *alma mater,* first on pathology, and later (1882) was called to the chair of obstetrics and diseases of women. A few years later the chair was divided, when he became the professor of gynecology and abdominal surgery, a position from which he resigned after fifteen years of labor and after having occupied the deanship for four years. In 1892 Dr. Reed was elected a member of the Board of Directors of the University of Cincinnati, an office which he now occupies. In this connection one of his chief labors was in promoting the establishment of the medical department, the articles creating this having been formulated and written by him. That he might devote himself, with singleness of purpose, to the further development of interests connected with the university, Dr. Reed withdrew from all other college affiliations.



PRESIDENT-ELECT C. A. L. REED, M.D.

In 1897 Dr. Reed succeeded Dr. T. A. Reamy as gynecologist to, and clinical lecturer on diseases of women at, the Cincinnati Hospital, which is affiliated with the university as its clinical and pathologic school. In 1896 he was invited by Governor Bushnell to become a member of the Ohio State Board of Medical Registration and Examination, a position which he accepted, but which he resigned after two years, in response to the exactions of his private practice.

In 1885 he determined to devote his energies to the practice of abdominal and pelvic surgery, and with this end in view he became the pupil of the late Mr. Lawson Tait, of Birmingham, England. He also extended his observations in other hospitals of Europe and America, and has since devoted himself exclusively to this department of practice.

The Doctor has been largely interested in promoting the organization of the medical profession. This was especially exemplified in his work in connection with the Pan-American Medical Congress, a movement, of which, by virtue of his initiative and effective organization, he has been justly recognized as the founder. This congress, as is well known, embraces all the countries and colonies of the Western Hemisphere, and has already borne excellent results, not only in effecting an interchange of scientific thought, but in establishing an *entente cordiale* between the English and Latin-speaking members of the profession in the Americas. It has been his hope, as has been expressed in resolutions previously presented by him to the AMERICAN MEDICAL ASSOCIATION, and as reiterated in his presentation remarks at Atlantic City, to see the membership of the ASSOCIATION embrace the entire English-speaking medical profession of North America. Dr. Reed is one of the founders of the International Periodical Congress of Obstetrics and Gynecology, at the third biennial reunion of which, at Amsterdam, in 1899, he was one of the honorary presidents for the United States. He is also one of the founders of the American Association of Obstetricians and Gynecologists, of which he was the president in 1898. He is at present the president of the Cincinnati Obstetrical Society and is a member of several local and foreign medical societies.

Dr. Reed has contributed numerous papers to the current literature of the profession, and eastern publishers now have in press a text-book on gynecology, of which he is the editor.

Medical News.

CHOLERA threatens to be severe in Bombay this summer.

THE INVALIDED soldiers sent home from South Africa will be paid and medically treated until they are discharged, their families receiving the ordinary allowances.

THE COMMITTEE charged with the organization of a collective investigation of cancer in Germany is now fully formed. Professors von Leyden and Kirchner are the presidents, and Dr. George Meyer is the secretary.

A DAY resort for pulmonary invalids has been opened on the outskirts of Berlin, with facilities for reclining, for warming lunches and obtaining inexpensive wholesome refreshments. It is under the charge of a physi-

cian, and a pavilion with four beds is ready in case of emergencies.

NEW ARMY STRETCHER.—Dr. Chavernac, of Aix, France, has designed a new army stretcher which possesses two chief advantages over the stretchers now in use; namely, the wounded man can be lifted from the ground without shock or pain, and he is not touched by the bearers while this is being done. The stretcher is rigid and is made in halves, which, by pressure, fold together under the body of the patient. When loaded, the stretcher is mounted on a light bicycle carriage. It requires only two bearers, as compared with four for the stretchers now employed.

PROGRESS OF THE PLAGUE.—During the week ending May 10, 1771 deaths occurred from plague in India, as compared with 2498 during the previous week. This encouraging decline has occurred in a fairly equal way in all the affected districts. The plague mortality is diminishing more rapidly than the general mortality. The present epidemic is the fourth that has visited Bombay since 1896. It has lasted over 200 days and is responsible for over 50,000 deaths in the presidency. While the death-rate is abating, it is still higher than at any corresponding period. In Calcutta the mortality is still quite high, there being 252 deaths from the plague during the week ending May 10, while in Mysore province the epidemic has practically disappeared. The plague at Aden is a serious check to trade, as steamers call there for many other places besides those bound to or from India. In Hongkong it is feared that the plague may again become epidemic, as the number of cases is daily increasing. In Swatow and the hinterland of the Kwang-tung province the plague still prevails. At one city, Chow-Yang, seven miles from Swatow, the plague carried off 40,000 people during 1899. At Sydney the epidemic is declining and at no other of the Australian ports is the disease spreading.

PENNSYLVANIA.

Philadelphia.

DR. DANIEL HUGHES will spend the summer in Europe.

DR. WHARTON SINKLER will spend the summer at Wyncote.

DR. J. WILLIAM WHITE will sail for Europe, June 21. He will return in September.

DR. JOHN V. SHOEMAKER has been appointed a member of the Board of Charities and Correction, to succeed Alfred Moore, who recently resigned.

THE BRITISH ship *Bessie Markham*, from Buenos Ayres with a cargo of bones, has been detained at the Reedy Island Quarantine Station. On May 26 the captain of the vessel died, and it is feared that death may have been due to the plague.

AN EPIDEMIC of measles has broken out among the pupils attending the Bridesburg School, and in one department sixty have the disease. The school may be closed on this account.

ON JUNE 11 the Board of Health began its annual inspection of manufacturing plants and other houses, to determine their sanitary condition. The work began along the Delaware River front and extended northward. Nuisances found were ordered abated.

THE ONE hundred and forty-fourth annual commencement of the departments of medicine, dentistry, arts, science, law, and veterinary medicine of the University of Pennsylvania, occurred on June 12. In connection with the annual meeting of the college alumni there was a presentation of a portrait of Dr. William Pepper.

DANGEROUS TOY.

A dangerous plaything has been placed on the market in the shape of a marble coated with phosphorus, which, when thrown on a hard surface, produces a loud noise. Chief Chemist Robinson has made an examination and states that the coating is composed of phosphorus, chlorate of potash and sugar. Orders have been issued for the arrest of persons selling these toys.

MORTALITY STATISTICS.

The number of deaths occurring in the city for the week ending June 9 was 409, a decrease of 10 over that of last week, and a decrease of 69 over the corresponding period of last year. The principal causes of death were: apoplexy, 9; nephritis, 42; cancer, 17; tuberculosis, 41; diabetes, 1; heart disease, 36; influenza, 1; pneumonia, 41; suicide, 3.

EMERGENCY HOSPITAL.

The Philadelphia Emergency Medical Corps, which was organized some time ago for the purpose of relieving those who might suffer accidents during parades or public functions, is making extensive preparations for the accidents which may occur during the Republican National Convention. Members of this corps are to be distinguished by badges worn on the coat. A temporary hospital has been arranged.

RECEPTION TO PHYSICIANS.

The Philadelphia Medical Club tendered a reception, at the Hotel Bellevue, to a number of visiting physicians from various parts of the United States on the evening of June 9. Among the number present were: Drs. Abraham Jacobi, New York City; Alonzo Garcelon, Lewiston, Me.; George H. Simmons, Chicago; James M. Bodine, Louisville, Ky., and Frank Billings, Chicago. The reception followed a dinner, given at the Union League Club by Dr. James M. Anders of the Medico-Chirurgical College.

MARYLAND.

Baltimore.

DR. WM. S. HALSTED sailed for Bremen, June 7.

DR. FRANCIS T. MILLER and wife, and their son, Dr. L. W. Miller, left for Europe, June 9.

DR. JOHN MORRIS has retired from the practice of medicine, owing to ill-health and age.

THERE WERE 152 deaths in this city last week, 15 being from pneumonia. The death-rate per 1000 is 14.61, viz., whites, 12.58; colored, 26.66.

THE ANNUAL report of the Nursery and Child's Hospital shows that there were 228 children admitted during the year. The general receipts were $8,916.78 and the expenses were $4,900.63.

ABOUT twenty-five physicians from here will go to Paris this summer, to attend the International Congress. Among them will be Drs. Osler, Jacobs, Hemmeter and Cullen.

COLLEGE OF PHYSICIANS AND SURGEONS.

At this institution the following changes have been made: Dr. C. Hampson Jones is transferred from the chair of obstetrics to that of clinical medicine and hygiene; Dr. Geo. W. Dobbin, appointed professor of obstetrics; Dr. Cary B. Gamble, associate professor of clinical medicine; Dr. W. F. Smith, associate professor of surgical anatomy; Drs. Archibald C. Harrison, Samuel Butler Grimes, and S. Griffith Davis, demonstrators of anatomy; Dr. Glen M. Litsinger, demonstrator of obstetrics; Dr. Lybran Rosenheim, demonstrator of bacteriology.

ILLINOIS.

Chicago.

DR. BAYARD HOLMES has returned home from his European trip.

DR. RUDOLPH HOLMES sailed recently for Europe, to spend a year in study there.

THE TRUSTEES of the Northwestern University have decided to continue the medical schools for men and women as separate institutions.

THE WILL of the late Dr. Truman W. Miller (see THE JOURNAL, June 2, p. 1425) has been probated. The estate amounts to $175,000, and is left to Dr. Miller's wife and daughters.

DEGREES were conferred on twenty-one young women at the commencement exercises of the Woman's Medical School of the Northwestern University, held June 14.

THE SAMARITAN Hospital, at 481 Wabash Avenue, was opened June 11. It is in charge of Dr. L. Blake Baldwin, and is intended to care for cases of accidents and emergencies, in

which immediate attention is required, and in which the long journey to the County or other hospitals would expose the patients to grave risks.

EMERGENCY Ward, No. 1, at 85 Plymouth Place, will be opened about July 1. The City Council has appropriated $2000 for its establishment, after long and patient work on the part of the Medical Woman's Club. The object of the hospital is to take care of surgical and medical emergency cases, and afford prompt first-aid.

THE ANNUAL meeting of the Chicago Medical Society will be held in the Assembly Hall of the Fine Arts Building, June 20. The annual address will be delivered by Dr. Maurice H. Richardson, professor of surgery in the Harvard Medical School.

KENTUCKY.

THE MEDICAL officers of the Confederate Army and Navy held a meeting in Louisville, recently.

DR. J. S. REDWINE entered on his duties as superintendent of the Eastern Kentucky Lunatic Asylum, in Lexington June 1.

IOWA.

AT THE meeting of the medical staff of Mercy Hospital in Dubuque, recently, Dr. J. F. McCarthy was chosen president; Dr. J. M. Boothby, vice-president, and Dr. F. W. Meyers, secretary. It was decided to start a training-school for nurses in connection with the institution.

NEW JERSEY.

Dr. Francis H. Glazebrook, of Elizabeth, has been appointed house physician at the Orange Memorial Hospital.

THE BOARD of trustees of the Cooper Hospital has appointed Drs. A. S. Ross and S. E. Fretz, of Sellersville, Pa., resident physicians for the ensuing year.

DISTRICT OF COLUMBIA.

Washington.

DR. CHAS. G. SMITH has been appointed resident physician of the Emergency Hospital, to take the place of Dr. W. C. Williams, who resigned.

THE SIXTEENTH annual commencement exercises of the medical department of the National University were held May 31. The address was made by Dr. C. T. Caldwell.

MICHIGAN.

THE FACULTY of the Saginaw Valley Medical College met June 5, and elected the following officers: president, L. W. Bliss; vice-president, B. B. Rowe; secretary, D. B. Cornell. It was decided to change the present three-year course to a four-year one, the new system to come into operation in 1901.

CALIFORNIA.

DR. GUY COCHRAN, Los Angeles, has gone to Europe to spend six months in travel and study.

THE NINETEENTH annual commencement exercises of the Cooper Medical College were held in San Francisco, June 5. Dr. William Fitch Cheney addressed the class, which was composed of thirty-eight members.

INDIANA.

DR. T. B. LYON, formerly of South Bend, who went to New Mexico two years ago, has fully recovered his health and has located at Raton.

ST. JOHN'S HOSPITAL, Anderson, will receive not less than $2000, as a result of the donation of all or part of the wages of the members of the Workingmen's Hospital Association for June 2.

NEW YORK.

DR. ROSWELL PARK, Buffalo, has been appointed chief medical director of the Pan-American Exposition.

THE SECOND annual commencement of the Cornell University Medical College occurred June 6. Diplomas were granted to fifty-three graduates, of whom twenty-one were women.

CANADA.

TREATMENT OF INEBRIATES.

Dr. A. M. Roseburgh has returned to Toronto after spending some time in Boston and vicinity, where he has been studying the practical side of the probation system as applied to the treatment of inebriates. He also visited the state institution for the treatment of inebriates from a pathologic standpoint, at Foxborough. He reports that in recent or mild cases of inebriety placed on probation, about 45 per cent. appear to be reformed, while of the pathologic cases—those of dipsomania—which receive institutional treatment at Foxborough, 37 per cent. are claimed to be reformed or cured. He says that the probation system has been found to be wonderfully successful in the reformation of delinquents, especially first offenders, as of these fully 85 per cent. are reformed. The bill for the treatment of inebriates, now under the consideration of the Ontario government, was presented to authorities, and the provisions thereof were very highly approved by them.

REGULATION OF THE SALE OF PATENT OR PROPRIETARY MEDICINES OR CURES.

A draft of a proposed bill which will be introduced at the next meeting of the Ontario legislature will seek to regulate this business. It is aimed against the fraudulent or improper advertisement of drugs, medicines or cures, and against the sale of such of these as contain hurtful ingredients, and to license the advertisement or sale of patent or proprietary medicines, and in order to accomplish that purpose, will seek the appointment of an inspector, and further provide for the payment of a license tax in respect of such licenses. "Medicine" is defined as including all substances intended to be administered internally or applied externally to the human body with a view to the prevention, cure or alleviation of any disorder in its functions. "Advertisement" or "Advertise" shall include all things or proceedings intended to attract the attention of the public to any medicine. "Registrar" shall mean the registrar of proprietary medicines appointed under this act for the purpose of carrying into effect any of its provisions. "License" 'shall mean a license granted under this act, and "Licensee" shall mean the holder of any such license. The proposed registrar shall be appointed by the lieutenant-governor, and shall be attached to the provincial secretary's department. It will be provided that such officer shall be a member of the Ontario College of Pharmacy, and a regular qualified pharmaceutical chemist of at least seven years' standing. His duties are very explicitly set forth. All licenses must be renewed yearly; and the license tax will be $1000 per annum. Article "10" of this act reads: "No person shall advertise or sell or offer for sale any medicine unless the manufacturer or proprietor of same is a licensee." The bill further provides for fines and penalties under the act, and the machinery for putting such legislation into force, when it becomes law.

Montreal.

THE CITIZENS have recently contributed $1060 to the funds of the Victorian Order of Nurses.

DR. JAS. BELL, of McGill University, is to read the address in surgery at the annual meeting of the Medical Society of Nova Scotia, to be held early in July. The subject will be "Some Observations on Cancer of the Breast."

THE ANNUAL meeting of the Metropolitan Dispensary was held May 31. The affairs of the institution are apparently in excellent shape; and during the past year 575 cases were treated. Dr. Haldimand was re-elected president.

SUCH RAPID progress has been made in the medical library of McGill that a new building is to be erected at once. Two years ago the Association of Medical Libraries was formed under the supervision of the medical department of McGill, by which it is entirely supported. The library is at the disposal of all doctors, whether graduates or not.

PARIS LETTER.

VACCINATION BY SCHOOL-TEACHERS.

It has been proposed in France to allow school-teachers to vaccinate their pupils, and a discussion on this subject took place recently at the Académie de Médecine, the most distinguished scientific body of the kind in France, it being a great honor to belong to it, either as a member or a national or foreign associate. Dr. Hervieux spoke about the awards to the school-teachers who had contributed to the spread of vaccina-

tion, but Dr. Pinard, the celebrated accoucheur, who is to be president of the obstetric section in the International Medical Congress, opposed the measure on the ground that it would be fraught with danger, as the antiseptic precautions necessary to vaccinate without incurring any risk could hardly be expected on the part of men who had had no medical instruction. A law rendering vaccination obligatory would be much more efficacious. A new sanitary law is under consideration by the Senate, and in Article 6 of the first paragraph the following regulation is laid down: "Vaccination is obligatory during the first year after birth, the eleventh and the twenty-first. Parents or guardians are held responsible as to the carrying out of this rule." Moreover, compulsory disinfection will be resorted to if necessary.

Dr. Hervieux spoke recently of the outbreak of smallpox in Madagascar. The mortality, it would seem, is quite high. Vaccination has been tried with virus sent from France, and from Saigon, and even from calves that were inoculated on the island, but it has been found ineffectual, and he recommended using that of the buffalo, as these animals are found in Madagascar, and this has already been tried at Saigon. Considerable vaccinating has been done in Paris of late on account of the smallpox scare in February. A number of bad cases of black smallpox have occurrred at Marseilles and Toulon, and there was a slight outbreak at the Pitié Hospital, with four deaths in Paris during one week. The vaccination seems to take in a larger percentage of cases among the Americans. Dr. Vaquez, professor of the Faculté de Médecine, had only 4 per cent. who furnished a positive result, whereas in your correspondent's practice, out of about forty-six cases there were eight positive results. Americans, as a rule, do not seem to be vaccinated as often as are the Germans and the French. Instead of scraping the skin, as is done in America, the most noted vaccinators, such as Chambon and St. Yves Mesnard, make a very slight prick or a tiny scratch, so as not to draw blood, and apply collodion, after waiting a few moments. This does not seem to prevent the action of the virus.

TREATMENT OF ANEURYSM.

DR. DELBET, who is one of the best surgeons of the younger school, spoke at the Society of Surgery on the treatment of aneurysm by total extirpation and ligation of the arteries coming to or leaving the aneurysm. This treatment, which he has repeatedly advocated, was tried recently with full success by Dr. Monod, surgeon of the St. Antoine Hospital.

ALCOHOLISM.

Alcoholism is steadily on the increase in France, according to the latest statistics, and everything is being done from a medical point of view to check its progress. It is hard to accomplish anything by legislation, as the wine producers and sellers have a controlling vote in the parliament, and anything attempted against them would lead to untoward results. However, medical men have tried to do something; there has been founded an antialcoholic league, and prospectuses have been posted up in certain hospitals, showing the danger due to intoxicating liquors. Dr. Fernet, member of the Academy of Medicine and physician at the Beaujon Hospital, proposed, in a paper he read before the Academy, that alcoholism should be inscribed as the cause of death whenever the disease could be directly attributed to this factor, as for instance, in delirium tremens and diseases of the kidneys, heart and liver. This proposition was adopted.

GASTROSTOMY.

Dr. Poirier, who is editing the largest work on anatomy published in France, described a new method of gastrostomy, at a meeting held by the Society of Surgery. One finger's breadth from the ribs, an incision is carried out about 8 cm. in length; the rectus and transversalis muscles are incised, and the peritoneum opened by an incision 4 cm. long. The stomach is seized near the cardia, and is drawn out in the form of a cone, the mucous membrane being spontaneously detached. This cone is fixed by four separate cardinal points, and incised at its summit; the mucous membrane, in the form of a dome, is then detached and incised to a small extent, and a sound is introduced through the aperture thus made, then a few more sutures taken. The catheter is left as it is for from eight to ten days, then afterward is reintroduced two or three times a day for the taking of food. This method has been used on five patients suffering from various complaints necessitating gastrostomy, and has been found to be expeditious. There is no narrowing afterward. In one case, the general condition of the patient remained good eleven months after the operation.

MALTA FEVER.

In many cases, the so-called Malta fever has been confounded with typhoid fever, and at the recent congress of internal medicine, held at Wiesbaden, Dr. Neusser, of Vienna, made some remarks on what he has noticed concerning this disease. It has repeatedly been mistaken for typhoid or intermittent fever, endocarditis or consumption. The serum of patients suffering from this disease has an agglutinating power of from 1 in 20 to 1 in 1000. The fever attacks especially marines and British colonial troops. The convalescence is slow and necessitates the patient keeping to his bed about 90 days, and there is also danger of a relapse.

PARIS EXHIBITION.

The great topic of conversation in Paris, not only in social circles but also among medical men, is the exhibition. Preparations are being carried out in the different laboratories, cultures are being made, specimens mounted, papers composed and written out, so that a large number of interesting communications may be expected. The surgical instruments exhibit will be quite worth while visiting; it will be found on the Champs de Mars, and it is likely that in each foreign pavilion there will be also a separate display. The international Medical Congress is to hold its meetings August 2-9, and during that period there will be many dinners, receptions and reunions. A number of sections have been already established, and the work to be carried out has been more or less chosen and arranged. A large number of public building in the Latin Quarter will be used for the special meetings, but the general assemblies will take place in the grand hall of the Sorbonne. However, the greater number of the buildings chosen are near each other, a fact of some importance. There will also be given a reception by the president of the Republic, as well as by the president of the council. The Senate has put the gardens of the Luxembourg at the disposal of the committee, which intends giving a night festival, and there will be banquets offered by the presidents of the different sections to the members belonging to each section.

Correspondence.

Professional Frankness from the Standpoint of Ethics.

MAY THE DIAGNOSIS OF PULMONARY CONSUMPTION EVER BE ETHICALLY WITHHELD FROM THE PATIENT BY HIS MEDICAL COUNSELOR?

KNICKBOCKER, TEXAS, May 23, 1900.

To the Editor:—I have long been of the opinion that doctors are too often not sufficiently frank with their patients. It is a matter of every-day experience that patients very often are not entirely frank with their medical advisers. I do not hold it to be a duty of the doctor to tell the patient the name and properties of the medicament which he prescribes. To do so is virtually to take the patient into counsel as to the merits or demerits of the remedy in question, and few laymen possess the requisite technical knowledge to qualify them to consult with the doctor on such matters. The exceptional instances only prove the rule. Yet the doctor must be both frank and explicit in his direction as to dietary, mode of life, administration of remedies, etc. To do less than this would be to fall short of doing one's whole duty in the case.

I hold that under no circumstances should a doctor communicate to his patient an unqualifiedly unfavorable prognosis, except when the latter, already suspecting the worst, requests to be informed as to the probable outcome of his illness. There is in this case no option but entire frankness. Such instances occur but seldom. Generally, when such inquiry is made, the medical adviser is fully warranted by the facts in giving a hopeful prognosis. By some process of intuition those patients who are entering the dark valley recognize Nature's law of mortality, and neither need nor wish for confirmation of an inevi-

table event. To thrust the unsolicited prognosis upon them is an ethical crime. When the doctor has frankly communicated the unfavorable outlook to the nearest friends, his whole duty and his responsibility in this regard are ended.

But if there be no call for the communication by a physician to his patient of an unsolicited fatal prognosis—if, indeed, such a course be, as I hold it to be, an ethical crime—what shall we say of communicating to him the unsolicited diagnosis of a disease which is commonly reputed to be, but which as a matter of fact is not necessarily, of fatal import? May we tell him: "You have cancer?" Should we, or should we not, say to him aloud: "You have consumption?"

If the diagnosis of either cancer or consumption implied, as a necessary corollary, an utterly hopeless prognosis, the same ethical obligation would devolve on the doctor, in other hopeless cases—to inform the nearest friends as to the fatal outlook, and to avoid intimating, by word or sign, the unwelcome truth to the patient who palpably dreads to have his fears confirmed. But since post-mortem records show that 35 per cent. of humanity dying of other diseases present evidences of healed tuberculosis, a fatal prognosis is not necessarily implied as a sequence of the diagnosis of consumption. And since the permanent arrest and cure of consumption, as well as the avoidance of infection to others, calls for intelligent co-operation of the patient with the physician, in a multitude of hygienic details, it appears to me an ethical sin of omission of momentous magnitude *not* to tell the patient frankly the unpalatable truth that he has consumption, so soon as the diagnosis is made.

Every practitioner at climatic resorts, or in charge of a sanatorium, has frequent occasion to regret the tardy diagnosis of pulmonary consumption in patients who come to him in a hopelessly advanced stage of the disease; and it not seldom is the case that such patients were dissuaded by their medical advisers from seeking a change of climate when they themselves had proposed it.

If those physicians who avowedly make it their uniform practice not to tell a patient that he has consumption, "unless he requests the information"—as reported in THE JOURNAL, May 12, p. 1158—could witness, as I have repeatedly, the unavailing wrath of their patients, who have later changed climate—after having first changed physicians—over the loss of time and money in slowly regaining a modicum of former health—all due to this unfortunate and too common lack of professional frankness—I think their views as to the best method of "comforting" (?) their patients and their patients' friends would undergo some modification. And I have never been able to think otherwise than that a feeling of resentment on the part of a patient was wholly justified toward a medical adviser who thus withheld from him, however benevolent the motive, the diagnosis of consumption after it was once made.

Until recently it has not been possible to make a diagnosis of pulmonary tuberculosis with approximate certainty and absolute safety to the patient, until after destructive changes had liberated Koch's bacilli for microscopic recognition. The best authorities confess their occasional regrettable errors of diagnosis in the incipiency of the disease, when relying on the symptoms and physical signs alone. But while the tuberculin test has its admitted dangers, unless used with the greatest circumspection, the watery extract of tubercle bacilli, as prepared by Karl von Ruck, M.D., Asheville, N. C., appears entirely devoid of evil results, if used *secundem artem*, while its diagnostic value is equal to that of tuberculin.

It is now possible, therefore, for the general practitioner—may his tribe increase—who wishes to be entirely frank with his tuberculous patients, to make the diagnosis of pulmonary consumption in its incipiency; to tell his patient with obligatory frankness the name and nature of his ailment; and to advise him what course of procedure will at that stage afford him a reasonable prospect of early and complete recovery. And, to my individual view, anything short of entire frankness under these circumstances appears to be ethically indefensible.

BOYD CORNICK, M.D.

A WELL equipped and endowed Institute of Bacteriology has been erected in Ceylon.

Deaths and Obituaries.

PAUL GIBIER, M.D., New York City, died, June 9, of injuries received in a runaway accident. He was born in France in 1851, and was graduated from the University of Paris. In 1885, he was commissioned by the French government to study the cholera epidemic then raging in Spain. His work there procured for him a gold medal from the French Republic and a membership in the Legion of Honor. In 1888 he was sent to study the yellow fever in Havana and Florida. In 1890 he established the Pasteur Institute in New York City. He has since been at the head of that institution, and also of a sanitarium at Suffern, N. Y.

ALFRED E. EMERY, M.D., died, May 23, in Penacook, N. H., aged 59 years. He studied medicine at Harvard University for two years, and was then appointed acting assistant-surgeon in the United States Navy. His first service was on the hospital ship of the Massachusetts squadron, but later he was attached to one on the North Atlantic. In 1865 he was graduated from the medical department of the University of Vermont. He located in Wilton, Conn., where he remained until 1879, when he moved to Penacook, where he lived until his death. He was a member of the New Hampshire Medical Society and of the United States pension examining board.

JOSEPH DAVIS OSBORN, M.D., Newark, N. J., died, June 2, after a long illness, aged 67 years. He was graduated from the New York College of Physicians and Surgeons in 1859. During the Civil War he served as surgeon of the Fourth New Jersey Volunteers, and since the close had practiced medicine in Newark.

EDWARD STEPHEN CLARK, M.D., San Francisco, Cal., died, June 1, aged 44 years. He was born in Kentucky, and educated at the Central University at Louisville, from the medical department of which he received his degree in 1880. He was a member of the San Francisco Medical Society, of the State Medical Society, the San Francisco Polyclinic, and the AMERICAN MEDICAL ASSOCIATION.

JOHN NIGHTINGALE, M.D., died in San Francisco, Cal., June 3, aged 45 years. He was graduated from the Cooper Medical College in San Francisco, and then went to France and Germany to complete his studies. In the winter of 1890, he had la grippe, and had never fully recovered his health.

MELANCTHON STORRS, M.D., Yale, 1853, died in Hartford, Conn., June 9, from septicemia contracted during an operation. He was born in Mansfield, Conn., in 1823, and served in the Civil War as a surgeon of the Eighth Connecticut Volunteer Infantry. He was once the president of the State Medical Association.

JOSIAH N. BOGGS, M.D., Allegheny, Pa., died at St. Louis, Mo., May 31, aged 71 years. He was graduated from Atlantic Medical College, in 1861, and served during the Civil War as assistant-surgeon of the Fourth Alabama regiment. At its close he settled in Pittsburg.

H. S. DEFORD, M.D., Jefferson Medical College, 1864, died in Osceola, Mo., May 24. In the spring of 1866, he located in Ottawa, Kan., where he lived until a few months ago.

CHARLES S. COLLINS, M.D., College of Physicians and Surgeons, N. Y., 1885, died at his home in New York City, May 20, aged 38 years.

J. D. KETCHAM, M.D., died at his home, Tunnelton, Ind., June 4, of smallpox, aged 35 years.

B. P. CLARK, M.D., De Ray, Tenn., died May 30, after a protracted illness, aged 73 years.

Miscellany.

Ptomain Paralysis.—A healthy boy of 15 and his mother, who was 40 years of age, were suddenly affected with paralysis of almost all the muscles innervated by the brain. This extended later to the muscles of the trunk and lower extremities, but there was no disturbance in sensibility nor in the sphincters, no preceding infectious disease, and no local

phenomena in the alimentary canal. Both mother and son had been eating fish, and Preobrashenski, who reports the occurrence in *Med. Obos.* for January, and also in *Deutsche Ztft. f. Nerve.* xvi, and 6, attributes it to ptomain poisoning, the manifestations resembling those of intoxication with curarin. He believes that many cases of so-called "rheumatic polyneuritis" and paralysis were in reality due to a similar cause.

Cause of Inefficacy of Diphtheria Serum Per Os.—To the epithelium and lymphatic system of the intestines must be ascribed the chief rôle in the destruction or neutralization of diphtheria antitoxin when administered by the mouth. Nedrigaloff's numerous experiments and tests have shown that neither the gastric juice, the bile nor the pancreatic juice have any influence on it.—*Vratch*, xxi, 26.

International Medical Congress.—Quarters have been secured for the different sections so that members can go conveniently from one to the other. Ophthalmology will be centered at the Hôtel Dieu, with its special clinic; dermatology at St. Louis, on account of its superb museum, and urinary surgery at Necker, with its special equipment. A physician who sends his subscription, receives in return his receipt, membership ticket and railroad certificate. When he enters France he has his railroad ticket stamped at the frontier station. On his arrival in Paris he repairs at once to the offices of the Congress and presents his membership ticket. He is then conducted to a special department for his nationality, the name of his country being placed above the desk. Here he finds a special secretary, able to converse with him in his own language, who stamps his railroad ticket and then gives him a *dossier* or folder—a separate color for each nationality—and in this he finds the programs, meeting places, invitations to receptions, festivities, tickets to excursions, guide to the hospitals, etc. Each secretary is prepared to furnish information supplied by the various agencies in regard to convenient and economical rooms and board. When the visitor is ready to leave Paris the railroad gives him, free of charge, a ticket to the frontier station where he had his ticket stamped when he entered France. The grand night fête in the Luxembourg palace and gardens, we are assured, will be "worthy of its magnificent setting."

Hospital Ship "Relief."—The *Hongkong Telegraph* of Monday, March 5, 1900, gives a gratifying account of the impression made by the hospital ship *Relief* on those who inspected her while refitting in port. The article conveys a fuller and better description of the vessel than any which has appeared in our United States journals:

On Saturday afternoon the United States Army hospital ship *Relief* which has been lying here for a short time refitting, was *en fete*, the medical officer in command, Major Perley, having invited the officers of the garrison and of the British and foreign war ships in port to inspect the vessel. A great number responded to the invitation and were shown over the ship by Major Perley and his courteous staff.

The *Relief* is a vessel of 3090 tons, 313 feet in length over all, 455 feet beam, and draws from 16½ to 18 feet of water. She has engines of 4500 horse-power, and can steam seventeen knots, her bunker capacity being 850 tons and her consumption at twelve to fourteen knots forty to fifty tons per day. In appearance she is more like a river boat than a sea-going ship, having a low free board and two tiers of cabins above the main deck; despite her appearance, however, she is said to be a capital sea-boat and made the trip out here from the Atlantic seaboard without once wetting her deck.

There are five wards on board, containing beds for no less than 250 sick, and fine and airy places they are, too, well ventilated and with electric fans fitted at intervals to insure a free circulation of air and keep the temperature down in the tropics. The berths are arranged in rows with gangways between, and are in two tiers. These are on a steel framework and, being all fitted with spring mattresses, are most comfortable. There were about fifty sick on board Saturday, and they all appeared to be very happy and contented with their lot, indeed, a man would be hard to please who was not, for few shore hospitals can boast of such complete arrangements.

The operating-room is a most excellently planned establishment, being situated on the port side of the ship and supplied with large ports, which ensure a plentiful supply of light for all operations. This, however, is supplemented by two groups of electric lights, so that the most delicate piece of work can be performed either day or night. Round the walls are ranged glass-fronted cupboards containing instruments of all descriptions, all beautifully bright and ranged in order so that any particular one that may be required can be got at in a moment. Another cupboard contains sterilized bandages, lint, and so on, all stored in air-tight glass bottles, while in all the cupboards a barometer is fitted in order that the officer in charge of the operation-room may be able to see at a glance the state of the atmosphere in each and take steps to exclude damp. Another excellent arrangement is a large electric sterilizing apparatus into which all instruments are put as soon as done with, and thoroughly sterilized against next being required for use.

The comfort of the patients in the matter of food and drink is not forgotten either, for the ship possesses a most complete refrigerating plant, which produces fifteen hundred pounds of ice a day, and, in addition to this, there is a large cold-storage chamber in which there is still a large supply of American beef, which came out with the ship six months ago. A couple of sides were hanging in the butcher's shop, and very nice it looked with its firm, yellow fat, which one so seldom sees on Hongkong beef. The cooking arrangements are capital, and, in addition to the regular galley, an electric kitchen is attached to one of the wards, in which any little delicacies that the patients may require at odd times are attended to. It was hard to believe that the neat looking dresser with its little brown pads could in reality be a stove, but a turn of the switch soon convinced one of the fact that coals or oil are not necessarily associated with cooking.

The lavatory arrangements are far and away above anything of the kind to be found in the ocean liner or even in the best hotels ashore. In addition to the ordinary lavatory attached to each ward, there is a bath fitted in the ward itself for the use of patients who can not be moved about much, and both hot and cold water are laid on, while a most ingenious contrivance mixes the two streams when desired and, by the manipulation of a couple of handles and the study of a thermometer attached to the tap, water can be drawn at any temperature required, to within half a degree. Down on the main deck is situated a laundry, and a very fine one it is, fitted with the most modern machinery, and capable of dealing with all the washing, both of patients and attendants. Here, too, there is a big sterilizer in which the clothing and bedding of patients suffering from infectious diseases can be rendered innocuous.

Facing the operation-room, on the port side, is the dispensary, which does not remind one of a chemist's shop so much as one would suppose, for though the bottles are all there they are small in size, and one wonders how two hundred and fifty patients can possibly be dosed from them. Major Perley, however, explained that they did not believe in filling their patients with medicines so much as in carefully studying the case and correcting matters more by fresh air and diet than by drugs.

Another very interesting compartment was the laboratory, with its groups of microscopes and other instruments for studying bacilli, and the rows of tubes and flasks containing cultures of all sorts. Mounted at the end of one ward was the X-ray apparatus, and the visitors were shown the bones of their hands by the means of this wonderful invention, which has revolutionized modern surgery. Photography has not been forgotten and a well-appointed dark-room is fitted on the starboard side of the vessel, with every requisite for the art.

The staff consists of four medical officers in addition to Major Perley, and these are assisted by eight trained nurses, of whom, strange to say, four are English, two German, and only two American, though all were trained in America. The whole vessel gives one an idea of comfort and thoughtful arrangement, from the india-rubber paving tiles to the seltzer plant, which, by the way, turns out a thousand bottles daily for the patients. The vessel is panelled throughout in white, and gives one more the impression of being on board a well-fitted yacht than a floating hospital. If the *Maine*, which our American cousins have so generously fitted out for our wounded in South Africa, is even half as well turned out and comfortable as the *Relief*, then our men have indeed much to be thankful for.

Metal Clasps for Suturing.—Michel has invented a suture device in the shape of a row of metal clasps, which are applied to the lips of the wound, somewhat similar to the old spring-wire forceps, called *serres-fines*. Michaux has been using the clasps for over a year, and recommends them as the

simplest, most rapid and most exact method of suture yet devised. In a communication to the Société de Chirurgie, reported in *La Presse Médicale* of May 19, he states that a laparotomy incision can be sutured with these *agrafes* in thirty to fifty seconds. They are removed after six to eight days, leaving a regular, linear scar.

City Freed from Mosquitoes.—A chart was made of the city of Sassari, on the Island of Sardinia, showing every cistern, pond, sewer, ditch, trough, etc., which could breed mosquitoes, and persons were hired to pour petroleum on the surface of the water twice each month. At the same time a vigorous warfare was waged against the mosquitoes in the air by chlorin in cellars and Celli's "zanzolina" or other insecticides in the houses. The results were completely successful, and establish that it is possible to free a city from mosquitoes unless the conditions are exceptionally unfavorable, as at Venice. The expense for a city of 50,000 inhabitants is about $250, including service. Fermi's official report is summarized in the *Gazz. degli Osp.* of April 15.

Bathing of the New-Born.—The question whether the newborn should be bathed or not has occupied the attention of the Prussian and German obstetricians during the last decade. Dohrn, in 1880 (*Archiv. f. Gynecologi*, 1880), formulated the following procedure: Having washed the umbilical cord with a 2.5 per cent. solution of carbolic acid, it is wrapped up in carbolized cotton and secured with adhesive plaster. The dressing is left on for seven days. The child is not bathed at all. Artemyeff (*Arch. f. Gyn.*, 1887) modified Dohrn's dressing—he does not apply the adhesive plaster. Lvov (*Jour. Akush. i Jensk. Bol.*, 1888) advised powdering the umbilical cord with one part of iodoform and ten of bismuth. The child is bathed. In 1892, however, Lvov changed his opinion, and suggested another method: After the first bath, the cord is wiped dry, wrapped in absorbent cotton saturated with glycerin and bandaged with gauze. The child is not bathed until the cord falls off. Doctor (*Arch. f. Gyn.*, 1894) has studied this question on 1341 new-born children. His conclusion that children should not be bathed until the cord falls off is based on the fact that such children are less liable to febrile complications; their weight is more rapidly increased, and the cord falls off earlier than in children who are bathed daily. Keilman (*Deutsche Med. Woch.*, 1895, No. 21) reported his observations made on 400 children and arrived at the same conclusion as Doctor, with the exception that in his cases he did not notice the difference in time of the drying up of the cord. Weinstein (*Jour. Akush. i Jensk. Bol.*, 1895, p. 846) also advised against bathing the new-born. He based his conclusions on the observation that the cord in unbathed children falls off earlier. Knopp (*Monatschr. f. Geburtschülfe u. Gyn.*, 1897) warned against bathing the new-born, so as not to infect the vagina with gonorrhea. Neuman (*Berliner Klinische Woch.*, 1898, No. 1), in his report before the Berlin Medical Society, pronounced bathing of the newborn as absolutely harmful. Arthes (Ibid., 1898), made his observations on 150 children and arrived at an opposite conclusion, as did also Czerwenka (*Wiener Klin. Woch*, 1898, No. 11). Kovarski (*Vratch*, 1900, p. 102) has conducted careful observations on 420 children; half of the number were bathed, and the other half were not. With the exception of a large percentage of icterus among the bathed ones there were no other perceptible differences. After summarizing the pros and cons of the subject Kovarski concludes that no scientific proof has as yet been adduced as to the harmfulness of bathing, and that we can follow, without perturbation of spirit, the time-honored custom of bathing the new-born.

The "Plague of Women in War."—The following interesting view of certain conditions in South Africa is taken from the *Army and Navy Journal* of June 2:

A very healthy sentiment that may work a decided reform has been awakened in England by Surgeon Treves' denunciation of the "plague of women" in the South African War. This phrase he curtly used in some brief remarks and it called out great protests from women who misunderstood his meaning. The misconstruction was fortunate, for it focused attention on the subject and gave Dr. Treves occasion to reply at length to his critics, which he did in a speech at the Reformed Club, London. That left no room for doubt. He prefaced his remarks with the almost superfluous statement that no one had a deeper sense than he had of "the splendid work which many large-hearted, unselfish women, professional and amateur alike, are doing in South Africa. Then he paid his respects to the other class—those "elaborately dressed ladies masquerading in summer toilets and arranging picnics about Cape Town, which was packed with women idlers, the majority of them 'society' or 'smart' people, who, yearning for new excitements, had come out to South Africa to make a holiday. The condition of affairs, as brought about by the presence of these ladies, was an absolute disgrace to our country. If a sick or wounded officer came down from the front in search of accommodation he had not the slightest chance of getting into a decent hotel, the rooms being occupied by ladies who had not the faintest pretext for being in South Africa beyond their own desire to make the campaign a means of obtaining new pleasure and excitements. That, however, was not the worst side of their presence. When dinner parties and other junketing grew wearisome, they would make up parties to visit the hospitals. 'What shall we do today?' 'Oh, let's go and see the wounded,' would be the preparation for an invasion of the base hospitals and an incalculable amount of interference with the work of the medical staff. Officers in charge of the wounded know what influence means in the matter of promotion, and so the women would be taken round the wards and the wounded shown, to the utter disorganization of discipline and duty."

Surgeon Treves has been very generally supported. The *Westminster Gazette* says: " This 'social influence,' this 'petticoat patronage,' is, we are told, the canker which for years has been sapping the vitality of the British Army. It is a notorious fact that the surest method of obtaining a good appointment is for an officer to get his name noted on the list kept by a certain lady of title: the good word of the dame will more effectually secure the advancement of her nominees than any amount of meritorious service or hard work without such a backing."

BOOKS AND PAMPHLETS RECEIVED.

Acknowledgement of all books received will be made in this column, and this will be deemed by us a full equivalent to those sending them. A selection from these volumes will be made for review as dictated by their merits, or in the interests of our readers.

TREATMENT OF FRACTURES. By Charles Locke Scudder, M.D., Surgeon to the Massachusetts General Hospital. Assisted by Frederick J. Cotton, M.D. With 585 Illustrations. Cloth. Pp. 433. Price, $4.50. Philadelphia: W. B. Saunders.

CONTRIBUTIONS TO THE SCIENCE OF MEDICINE. Dedicated by his Pupils to William Henry Welch on the Twenty-first Anniversary of his Doctorate. Cloth. Pp. 1060. Baltimore, Md.: Johns Hopkins Press. 1900.

CARE OF THE CHILD IN HEALTH. By Nathan Oppenheim, A.B., M.D., Attending Physician to the Children's Department of Mt. Sinai Hospital Dispensary. Cloth. Pp. 305. Price, $1.25. New York: The MacMillan Co. 1900.

TWENTIETH CENTURY ANNUAL ILLUSTRATED CATALOGUE FOR 1900 Cloth. Pp. 1123. By Peter Van Schaack and Sons. Chicago: Blakely Printing Co. 1900.

REPORT OF THE HOUSING OF LABORING CLASSES IN THE CITY OF WASHINGTON, D.C. By George M. Kober, M.D. Paper. Pp. 120. Washington: Government Printing Office. 1900.

TRANSACTIONS OF THE MEDICAL SOCIETY OF DELAWARE. Held at Wilmington June 13, 1899. Paper. Pp. 70. Wilmington, Del.: Sunday Star Job Print. 1899.

REGISTER OF INTERNES OF THE CINCINNATI HOSPITAL (Formerly Commercial Hospital). 1830-1890. Compiled by Arch. I. Carson, M.D. Paper. Pp. 48. Published by the Society of Internes. 1900.

REPORT OF THE MINISTER OF AGRICULTURE FOR THE DOMINION OF CANADA, for the year ended Oct. 31, 1899. Paper. Pp. 258. Price $.15. Ottawa: S. E. Dawson, 1900.

PROCEEDINGS OF THE PATHOLOGICAL SOCIETY OF PHILADELPHIA. May, 1900. Paper. Pp. 188. Philadelphia: Published by the Society. 1900.

ACTS OF THE ONE HUNDRED AND TWENTY-FOURTH LEGISLATURE OF THE STATE OF NEW JERSEY AND FIFTY-SIXTH UNDER THE NEW CONSTITUTION. Paper. Pp. 630. Trenton, N.J.: MacCrellish & Quigley. 1900.

REPORT OF THE HEALTH OFFICER OF THE DISTRICT OF COLUMBIA. 1899. Cloth. Pp. 367. Washington: Government Printing Office. 1899.

THE APISTOPHILON. A Nemesis of Faith. By Frank D. Bullard, A.M. Cloth. Pp. 109. Chicago: R. R. Donnelley & Sons Co. 1899.

SCHERING'S FORMALIN LAMP AND DISINFECTOR. SCHERING'S FORMALIN DISINFECTANT AND DEODORIZING LAMP. New York City: Schering & Glatz.

NEW PATENTS.

Patents of May 22 and 29 of interest to Physicians.

650,218. Orthoguaiacol sulfo-acid and making same. Emil Barell, Basle, Switzerland.

649,896. Head-bandage. Jacob Baughman, Burlington, Iowa.

650,003. Dissolving albumen. Hermann Bremer, Munich, Germany.

650,166. Pneumatic syrup-jar for soda fountains. Charles N. Chadbourn, Minneapolis, Minn.

649,984. Invalid bed. Lydia A. Goodson, Elgin, and C. S. Burton, Oak Park, Ill.

649,938. Obtaining tuberculosis toxin. Gustav Landmann, Frankfort-on-the-Main, Germany.

650,080. Syringe. John S. Marmaduke, Marshall, Mo.

650,187. Making boracic acid and chlorates. Charles C. Moore, Liverpool, England.

650,022. Volatile chloral compound and making same. Heinrich Oppermann, Bernburg, Germany.

650,023. Making magnesium superoxid. Heinrich Oppermann, Bernburg, Germany.

650,203. Hypodermic syringe. Albert S. J. Stovall, Elberton, Ga.
650,287. Draft-tube for effervescing drinks. Wm. M. Wheildon, Boston, Mass.
650,348. Hypodermic syringe. Charles Witowski, Boston, Mass.
650,774. Surgical appliance. Robert W. Barton, Marion, Ark.
650,714. Hernial truss. Henry Fehr, Kansas City, Mo.
650,760. Gelatin capsule. Frederick H. Metcalf, Franklin, Ill.
650,616. Automatic measuring cork and recording dial. Fernand Salomon, Philadelphia, Pa.
650,617. Combined dropper and liquid measurer, recording dial, and dose-indicator. Fernand Salmon, Philadelphia, Pa.
650,496. Tonsillotome. Frederick A. Stohlmann and L. G. Pfarre, New York City.
650,696. Emetin salts and making same. Wm. G. Whiffen, London, England.

Queries and Minor Notes.

TREATMENT OF PELLAGRA.

NEW ORLEANS, June 1, 1900.

To the Editor:—Will you kindly answer in your query column, the treatment of "Pellagra," an endemic erythematous disease of Italy. By doing so you will oblige, Respectfully, M. D.

ANSWER:—The treatment of pellagra is, first of all, prophylactic, the avoidance of or the discontinuance of the use of the diseased corn that causes it. The drug that appears to be most depended on is arsenic, but its use will depend somewhat on the condition of the gastro-intestinal tract. For the digestive disorders, the usual remedies are indicated, with gastric lavage, milk diet, intestinal antiseptics, etc. When the disease has seriously involved the nervous system, treatment is not, as a rule, very effective. The disorder is practically unknown in this country, and no method of treatment has been extensively tried here.

The Public Service.

ARMY CHANGES.

Movements of Army medical officers under orders from the Adjutant-General's Office, Washington, D. C., May 25 to June 1, 1900, inclusive:

John S. Fogg, acting asst.-surgeon, previous orders amended so as to require him to report to the commanding officer, Columbus barracks, Ohio, for duty.

Henry S. Kilbourne, major and surgeon, U. S. A., member of a retiring board convened at Governor's Island, N. Y.

John L. Phillips, captain and asst.-surgeon, U. S. A., member of a retiring board at Governor's Island, N. Y.

Francis J. Pursell, acting asst.-surgeon, to duty in the Department of California.

J. W. Richards, acting asst.-surgeon, to Governor's Island, N. Y., and thence to Havana, Cuba, for temporary duty on the transport *Ingalls*.

Henry E. Wetherell, lieutenant and asst.-surgeon, U. S. A., to duty in the Department of California.

Halsey L. Wood, acting asst.-surgeon, leave of absence granted.

NAVY CHANGES.

The changes in the medical corps of the United States Navy for the week ending June 2, 1900.

Asst.-Surgeon W. H. Barber, detached from the *Alliance* when placed out of commission and ordered to duty at the naval hospital, New York City.

Asst.-Surgeon C. N. Fisk, commissioned assistant-surgeon from May 15, 1900.

Surgeon O. D. Norton, detached from the *Monadnock* and ordered to the *Bennington*.

Asst.-Surgeon J. S. Taylor detached from the *New Orleans* and ordered to the *Culgoa*.

Asst.-Surgeon F. J. Grow, detached from the *Richmond* and ordered to the *Monadnock*.

MARINE-HOSPITAL CHANGES.

List of the changes of station and duties of commissioned and non-commissioned officers of the U. S. Marine-Hospital Service for the 7 days ending May 31, 1900.

Surgeon Preston H. Bailhache, detailed as official delegate of the Service at the meeting of the American Medical Association at Atlantic City, N. J., June 5-8, inclusive.

Asst.-Surgeon L. E. Cofer, to proceed to San Francisco, Cal., and report to Surgeon J. J. Kinyoun for special temporary duty.

Acting Asst.-Surgeon R. S. Primrose, granted leave of absence for 6 days.

Hospital Steward S. W. Richardson, granted leave of absence for seven days from May 20, 1900, under the provisions of paragraph 201, Regulations, M. H. S.

APPOINTMENTS.

M. Victor Safford and C. A. Bailey appointed acting assistant-surgeons for duty at the Immigration Depot, New York City.

W. F. Mendowell appointed hospital steward and chemist.

HEALTH REPORTS.

The following cases of smallpox, yellow fever, cholera and plague have been reported to the Surgeon General, Marine-Hospital Service, during the week ended June 9, 1900:

SMALLPOX—UNITED STATES

Colorado: Logan Co., May 25, 1 case; Mesa Co., May 25, 1 case.
District of Columbia: Washington, May 26 to June 2, 1 case.
Florida: Jacksonville, May 26 to June 2, 1 case.
Illinois: Chicago, May 26 to June 2, 1 case.
Indiana: Indianapolis, May 19 to June 2, 5 cases.
Iowa: Des Moines, May 1-31, 6 cases.
Kansas: Wichita, May 26 to June 2, 1 case.
Kentucky: Covington, May 26 to June 2, 11 cases.
Louisiana: Caddo, May 12-26, 5 cases; New Orleans, May 26 to June 2, 57 cases, 16 deaths.
Massachusetts: Fall River, May 26 to June 2, 1 case; Lowell, May 26 to June 2, 3 cases.
Michigan: Grand Rapids, May 19 to June 2, 5 cases.
Minnesota: Chippewa Co., May 15-29, 4 cases; Duluth, May 15-29, 2 cases; Hennepin Co., May 15-29, 4 cases; Houston Co., May 15-29, 4 cases; Jasper, May 15-29, 2 cases; Meeker, May 15-29, 2 cases; Minneapolis, May 15-29, 38 cases; Northfield, May 15-29, 4 cases; Pine Co., May 15-29, 7 cases; St. Paul, May 15-29, 8 cases; Sheldon, May 15-29, 4 cases; Waverly, May 15-29, 4 cases; Wright Co., May 15-29, 3 cases.
Ohio: Cleveland, May 26 to June 2, 24 cases; Dayton, May 26 to June 2, 1 case; Portsmouth, May 26 to June 2, 1 case.
Pennsylvania: Pittsburg, May 26 to June 2, 3 cases.
South Carolina: Greenville, May 19 to June 2, 4 cases.
Utah: Salt Lake City, May 26 to June 2, 5 cases.
Wyoming: Aspen, May 19-26, 6 cases; Rock Springs, May 19-26, 8 cases.

SMALLPOX—FOREIGN.

Austria: Prague, May 12-19, 3 cases.
Belgium, Antwerp, May 12-19, 2 cases.
Brazil: Bahia, April 21 to May 5, 1 case, 1 death.
Canada: Winnipeg, May 1-30, 16 cases, 8 deaths.
Egypt: Cairo, May 6-13, 5 deaths.
England: Liverpool, May 12-19, 2 cases; London, May 12-19, 3 cases; Southampton, May 12-19, 1 case.
France: Lyons, May 12-19, 5 cases; St. Etienne, May 1-15, 4 cases, 1 death.
Greece: Athens, May 12-19, 2 cases, 1 death.
India: Bombay, May 1-8, 33 deaths; Calcutta, April 7-14, 31 deaths; Kurrachee, April 29 to May 6, 16 cases, 14 deaths; Madras, April 28 to May 4, 1 death.
Mexico: Vera Cruz, May 16-23, 6 cases, 4 deaths.
Russia: Moscow, May 5-12, 9 cases, 3 deaths; Odessa, May 12-19, 11 cases, 2 deaths; St. Petersburg, May 5-12, 216 cases, 9 deaths; Warsaw, May 5-12, 1 death.
Scotland: Glasgow, May 18-25, 30 cases, 1 death.
Straits Settlements: Singapore, April 7-14, 7 deaths.
Uruguay: Montevideo, April 1-8, 1 case.

YELLOW FEVER.

Colombia: Barranquilla, May 5-12, 1 case, 1 death; Panama, May 22-29, 3 cases, 1 death.
Cuba: Cienfuegos, (Santa Clara Barracks) May 16-23, 1 case; Havana, May 16-23, 1 case.
Mexico: Vera Cruz, May 19-26, 22 cases, 6 deaths.

CHOLERA.

India: Bombay, May 1-8, 28 deaths; Calcutta, April 7-14, 113 deaths; Madras, April 28 to May 4, 1 death.

PLAGUE—UNITED STATES

California: San Francisco, March 8 to June 8, Reported present.

PLAGUE—FOREIGN.

Arabia: Aden, April 7-28, 266 deaths.
Australia: Sydney, April 28 to May 5, 38 cases, 10 deaths.
China: Hongkong, April 22-28, 33 cases, 28 deaths.
Egypt: Alexandria, May 8-11, 5 cases, 2 deaths; Port Said, May 3-5, 8 cases, 3 deaths.
India: Bombay, May 1-8, 340 deaths; Calcutta, April 7-14, 465 deaths; Kurrachee, April 29 to May 6, 219 cases, 173 deaths.
Japan: Osaka and Hiogo, May 7-13, 8 cases.
Kurdistan: April 2-17, 158 cases, 122 deaths.
Turkey: Smyrna, May 29, 1 case.

CHANGE OF ADDRESS.

Dr. F. S. Alger, from Keokuk, Iowa, to Bentley, Ill.
Dr. E. P. Adams, from 762 E. McMillan St. to St. Cloud Flats No. 1, Grand St., Cincinnati, Ohio.
Dr. C. H. Alden, from Washington, D. C., to Col. U. S. A., Hyannisport, Mass.
Dr. D. Ames, from Baltimore to Catonsville, Md.
Dr. L. D. Alexander, Jr., from Charlottesville, Va., to New Canaan, Conn.
Dr. F. W. Bates, from Charlottesville, Va., to 512 Penn Ave., Ft. Worth, Texas.
Dr. J. T. Baker, from Main St., Charlottesville to Box 309, Pulaski City, Va.
Dr. T. H. Barlow, from 204 S. Lincoln St., Chicago, Ill., to Alexandria, Minn.
Dr. H. B. Blackwell, from Charlottesville, Va., to Wilmington, N. C.
Dr. J. H. Blackburn, from Woodburn to State St., Bowling Green, Ky.
Dr. W. J. Bauer, from Promise City, Iowa, to 3348 22d St., San Francisco, Cal.
Dr. E. S. Barker, from 245 to 238 La Salle Ave., Chicago, Ill.
Dr. H. L. Baker, from 4 S. Kedzie Ave. to 655 W. 12th St., Chicago, Ill.
Dr. S. K. Burgess, from 9 S. Ada St. to 165 S. Wood St., Chicago, Ill.
Dr. B. J. Callahan, from Philadelphia, Pa., to Dakota City, Ia.
Dr. J. H. Caton, Jr., from Louisville, Ky., to Caton, Tex.
Dr. J. Clements, from Kansas City, Mo., to Nutley, N. J.
Dr. M. Crook, from University, Va., to Jacksonville, Ala.
Dr. J. H. Crawford, from Augusta to Martin, Ga.
Dr. W. Durrett, from Emden, Mo., to Ralston, O. T.
Dr. B. G. Dyer, from Des Moines to Gilbert Station, Iowa.
Dr. M. Da Costa Bates, from Terry, S. D., to Jackson Boul. and Halsted St., Chicago, Ill.
Dr. A. O. Eckhardt, from Silverton to San Jose, Colo.
Dr. T. W. Greenley, from Hot Springs, S. D., to Loon Lake, N. Y.
Dr. T. A. Groover, from Greytown, Nic. C. A., to Pidcock, Ga.
Dr. A. H. Geiger, from 18 Lincoln Ave. to German Hospital, Larrabee St. and Grant Pl., Chicago, Ill.
Dr. O. P. Hendrixson, from 26 E. Duncan St., Columbus, to Yellow Springs, Ohio.
Dr. W. D. Hoyer, from 18 W. 4th St. to 155 Dakota Ave, Columbus, Ohio.
Dr. F. A. Hohenschuh, from Iowa City to 223 5th Ave, Clinton, Iowa.

Dr. E. P. Hummel, from LaPorte City to Dysart, Iowa.
Dr. Wm. Hendricks, from 59th and Center Sts., to 936 W. 63d St., Chicago, Ill.
Dr. A. F. Hillman, from 171 La Salle Ave. to 328 La Salle St., Chicago, Ill.
Dr. A. E. Hoadley, from 683 Washington Boul. to 84 S. Robey St., Chicago, Ill.
Dr. W. Van Hook, from 4043 Grand Boul. to 5759 Washington Ave., Chicago, Ill.
Dr. F. P. Knauf, from Chilton to New Holstein, Wis.
Dr. A. F. Kemp, from Venice to Benton City, Mo.
Dr. M. F. Lee, from 177 E. Long St to 49 N. 9th St., Columbus, Ohio.
Dr. J. A. Miller, from Detroit to Bedlow, Mich.
Dr. Olin McCormick, from Saunemin to Herscher, Ill.
Dr. H. M. W. Moore, from 243 E. Town St. to 656 E. Long St., Columbus, Ohio.
Dr. J. S. Mott, from Commerce Bldg. to Rialto Bldg., Kansas City, Mo.
Dr. W. T. Moffett, from Williamsville to 346 W. State St., Jacksonville, Ill.
Dr. J. J. Minot, from Boston to Blue Hill Ave., Mattapan, Mass.
Dr. L. D. Mason, from Brooklyn, N. Y., to P. O. Box 226, Greenwich, Conn.
Dr. G. H. Moldenhauer, from 13 Clarinda St. to 418 Chicago Ave., Chicago, Ill.
Dr. E. R. Morse, from 4337 to 4311 Berkley Ave., Chicago, Ill.
Dr. W. L. Powell, from Charlottesville, Va., to Policlinic Hospt., Philadelphia, Pa.
Dr. W. H. Prioleau, from Charleston, S. C., to Buffalo Lithia Springs, Va.
Dr. B. J. Read, from Charlottesville to Bedford Springs, Va.,
Dr. E. F. Reese, from Richmond to Assamoosick, Va.
Dr. L. F. Richardson, from 41 Laflin St., Chicago, Ill., to Fairfax, Iowa.
Dr. G. F. Ramsey, from Charlottesville, Va., to Union Springs, Ala.
Dr. R. Stonestreet, from Paragon Mills to Flat Rock, Rural Del. No. 2, Tenn.
Dr. S. L. Scott, from Charlottesville to Box 212 Fredericksburg, Va.
Dr. C. W. Sydnor & Son, from Strasburg to Dry Bridge, Va.
Dr. J. W. Smathers, from Charleston, S. C., to Turnpike, N. C.
Dr. Mrs. M. S. Schmidt, from 892 Kedzie Ave. to 1596 W. 22nd St., Chicago, Ill.
Dr. J. F. Sloan, from 530 W. Adams St. to 296 Marshfield Ave., Chicago, Ill.
Dr. Gould Smith, from Homer to Pierson, Ill.
Dr. C. M. Shanely, from Forman to Lidgerwood, N. D.
Dr. J. E. Sawyer, from 4643 Evans Ave. to 472 E. 47th St., Chicago, Ill.
Dr. G. A. Trueman, from Chicago, Ill., to Munising, Mich.
Dr. J. A. Townsend, from Unionville to City Hospital, St. Louis, Mo.
Dr. S. J. Torney, from Saratoga to Stacyville, Iowa.
Dr. E. B. Tutenor, from 3553 Prairie Ave. to 3645 Grand Boul., Chicago, Ill.
Dr. J. P. Williams, from 1511 W. Broad St., Nashville to Bon Air, Tenn.
Dr. O. K. Womack, from Nashville to Stewart, Tenn.
Dr. J. W. Warbinton, from 11th and Walnut Sts. to 554 New Ridge Bldg., Kansas City, Mo.
Dr. A. J. Westlake, from Washington, D. C., to Breesport, N. Y.
Dr. S. M. White, from Minneapolis, Minn., to Somonauk, Ill.
Dr. C. L. Wheaton, from 42 E. Madison St., Chicago, Ill., to 1683 Ogden St., Denver, Colo.
Dr. J. J. Yates, from Nashville to Roberson Fork, Tenn.
Dr. J. M. Yarborough, from Charlottesville, Va., to Navasota, Tex.
Dr. C. E. Zink, from Baltimore, Md., to care F. E. Boardman. Little River, Conn.

Current Medical Literature.

Titles not marked with an asterisk (*) are noted below.

New York Medical Journal, June 2.

1.—*Microbes—What Are They? Henry G. Graham.
2.—*"Estivo-Autumnal Fever" in New Orleans, Summer and Autumn, 1899. (Continued). H. A. Veazie.
3.—*On a Little-Known Method of Treatment of Furunculosis. Gustav Langmann.
4.—*Diseases of Blood in Their Relation to Surgery, and Their Treatment. George G. Van Schaick.
5.—*Desultory Remarks Concerning Diphtheria. J. Wilkinson Jervey.
6.—Case of Mediastinal Growth with Subsequent Tuberculosis Disorganization. Mistaken for Aneurysm of Arch of Aorta. Frederic Griffith.

Philadelphia Medical Journal, June 2.

7.—*Hospitals for Insane and Study of Mental Diseases. Stewart Paton.
8.—*Diagrams of Genito-Urinary Tract, with a Table for Keeping Records. Ramon Guitéras.
9.—*Registration of Tuberculosis. Lawrence F. Flick.
10.—*Asthma. Richard B. Faulkner.
11.—*Siphonage of Partitioned Bladder for Individual Kidney Urines. Andrew J. Downes.
12.—*Prognosis in Fractures. Clinton B. Herrick.

Medical Record (N. Y.), June 2.

13.—*Radical Cure of Epithelial Cancer by Arsenic. C. Trunecek.
14.—*Cystic Tumors of Testis and Epididymis. James B. Bullitt.
15.—*Health Conditions in Hawaiian Islands. Charles E. Davis.

Boston Medical and Surgical Journal, May 31.

16.—*Inductive Method Applied to Medicine. C. W. Eliot.
17.—*Course in Pathology at Harvard Medical School. Wm. T. Councilman.
18.—*Case System in Medicine. W. B. Cannon.
19.—*Personal Experience in Teaching of Surgery. Herbert L. Burrell.
20.—*Consideration of Principal Objections to "Section Teaching" Together with Some of its Advantages. A. H. Wentworth.

Medical News (N. Y.), June 2.

21.—*Treatment of Membranous Colitis. W. H. Thomson.
22.—*Sanitarium Treatment of Incipient Pulmonary Tuberculosis and its Results. E. L. Trudeau.
23.—*Prevention of Scarlet Fever. Floyd M. Crandall.
24.—*State of New York and Pathology of Insanity. P. M. Wise.
25.—Hip-Joint Amputation. Wm. D. Hamilton.
26.—Stump Pregnancy. John C. Morfit.

Cincinnati Lancet-Clinic, June 2.

27.—*Some Points on Benign Stricture of the Rectum. Louis J. Krouse.
28.—Present Status of Abdominal Surgery. Rufus B. Hall.
29.—*Alcohol: Its Place. R. T. Trimble.
30.—Errors in Diagnosis. George Sprague.

Medical Review (St. Louis, Mo.), May 26.

31.—*Nature of Some Epithelial Growths and Their Treatment with Formalin. Martin F. Engman.
32.—Progress in Medicine. J. D. Brummall.
33.—Case of Acute Yellow Atrophy of Liver in Child 4 Years of Age. M. J. Lippe.

Medical Fortnightly (St. Louis), May 25.

34.—*Remarks on Vasectomy Relative to Enlarged Prostate and Bladder Atony. Reginald Harrison.
35.—Efficiency of Our Health Laws. H. W. Chapman.
36.—Defectus Uteri—Report of Case. J. H. Miller.
37.—Physical Basis of Insane Delusions. W. J. Chenoweth.

Medical Age (Detroit), May 10 and 25.

38.—Addiction to Drugs, Especially in Reference to the Medical Profession. Richard Dewey.
39.—Dislocation of External Semilunar Fibrocartilage of Right Knee; Removal of Cartilage—Case of Complete Rupture of Quadriceps Extensor Tendon Treated by Suture of Tendon. A. E. Halstead.
40.—Typhoid Fever in Infant Nine Months Old. Recovery. Wm. P. Northrup.
41.—Posthom Shadows in Medical Science. W. P. Manton.
42.—*Applicant for Life Insurance Should Receive More Protection in his Medical Examination. J. Howe Adams.
43.—Malignant Disease of Uterus; Malaria. Wm. H. Wathen.

Virginia Medical Semi-Monthly (Richmond), May 11.

44.—*Physiologic Treatment of Typhoid Fever. T. S. Dabney.
45.—Case of Morphinism, Cigarette Smoking, Dropsy, Convulsions. W. P. Carr.
46.—*Treatment of Pneumonia. J. C. Walton.
47.— Liability of Mistaking Locomotor Ataxia for Rheumatism. E. L. Tompkins.
48.— Clinical Significance of Albuminuria and Tube Casts. A. L. Gray.
49.— Irregular Case of Cerebrospinal Meningitis. Wade H. Atkinson.
50.— Advanced Remedies of To-day. W. P. C. Hazen.

Bulletin of the Johns Hopkins Hospital (Baltimore, Md.), May.

51.—*Urinary Anomalies. Thomas R. Brown.
52.—*Acute Leukemia in Childhood with Report of Case. Thomas McCrae.
53.—*Personal Experience in Operations for Stone in the Bladder. A. T. Cabot.

American Journal of Obstetrics (N.Y.), May

54.—*Problem in Antenatal Pathology: Recurrent Monstriparity. J. W. Ballantyne.
55.—*Indications, Technique, and Results of Improved Alexander Operation in Aseptic Adherent Retroversions of Uterus, When Combined with Inguinal Celiotomy via the Dilated Internal Inguinal Ring. A Goldspohn.
56.— Concerning Some Fallacies of Diphtheria and Antitoxin Statistics. Adolph Rupp.
57.—Some Recent Experiences in Intestinal Surgery. B. C. Hirst.
58.—Multilocular Cystic Growth of Ovary, Accompanied by Increased Growth of Hair and Change of Voice, with Recurrence in Abdominal Incision. Gwilym G. Davis.
59.—Abdominal Pregnancy. Report of Case. H. Meek.
60.—Preventive Gynecology. Richard R. Smith.
61.—Review of Five Years' Experience with Pelvic Diseases at Vanderbilt Clinic. Wm. S. Stone.
62.—Results of Modern Aseptic Surgical Technique. Hunter Robb.
63.—New Speculum. H. F. Gau.

Cleveland Journal of Medicine, May.

64.—Case of Diplegic Idiocy in its Clinical and Pathologico-anatomic Aspects. A. P. Ohlmacher.
65.—*Otitis Media. Howard S. Straight.
66.—*Some Causes of Pains in Feet. C. A. Hamann.
67.—Sarcoma of Bladder. Wm. C. Bunce.
68.—*Enteroptosis Relative to Disorders of Digestive Tract and Circulation. (To be Continued). N. Rosewater.
69.—Feeding in Typhoid—A Case in Point. G. S. Whiteside.
70.—Aseptic Pocket Hypodermic Syringe. James H. Montgomery
71.—Case of Extreme Genu Valgum Corrected by Supracondyloid Osteotomy. Wm. E. Wirt.

Physician and Surgeon (Ann Arbor, Mich.), April and May.

72.—*Education of Laity in Medicine. Theodore A. McGraw.
73.—Observations on Influenza. David L. Walmsley.
74.—*Faulty Methods of Education as Cause of Neuroses in Children. Arthur D. Holmes.
75.—*Diagnosis of Chronic Catarrh of Stomach. Charles D. Aaron.
76.—Some Causative Factors in Certain Diseases of Women. Otto T. Toepel.
77.—*Infantile Nephritis. Charles Douglas.
78.—*Intestinal Sand. Conrad Georg, Jr.
79.—*Use of Ethyl Bromid as General Anesthetic. Walter R. Parker.
80.—*Electricity in Treatment of Menstrual Derangements. Peter M. Campbell.
81.—*Therapeutics of Nitrities. Delos L. Parker.

Medical Herald (St. Joseph, Mo.), June.

82.—Post-partum Hemorrhage. W. S. Thompson.
83.—Some Interesting Genito-Urinary Specimens. Bransford Lewis.

Journal of Eye, Ear and Throat Diseases (Baltimore, Md.), May-June.

84.—Electric Treatment of Exophthalmic Goiter and of Simple Chronic Glaucoma. M. E. Valude.

University Medical Magazine (Philadelphia), May.

85.—*Coccygodynia. Barton C. Hirst.
86.—*Tumors of Vermiform Appendix. A. O. J. Kelly.
87.—*Perforation in Typhoid Fever from an Operative Standpoint, with Report of Cases. Gwilym G. Davis.
88.—Rhythmical Hysteria. James H. Lloyd.
89.—Two Cases of Interscapulo-Thoracic Amputation. J. Wm. White.

Regular Medical Visitor (St. Louis, Mo.), May 15.

90.—Two Cases of Chancre of Groin. A. H. Ohmann-Dumesnil.
91.—Enlarged Tonsils. Oscar F. Baerens.
92.—Can Fractures Always be Cured by Perfect Apposition and Immobilization? Emory Lanphear.
93.—Thermometry. C. Frederick Pfingsten.

International Medical Magazine, (N.Y.), May.

94.—Abdominal Operation for Multiple Uterine Fibroid; Tubal Disease and Pregnancy. E. E. Montgomery.
95.—*Some Points in Connection with Etiology and Treatment of Diabetes Mellitus. Alexander W. Beck.
96.—Chronic Hypertrophy of Prostate. (Concluded). J. D. Thomas.
97.—Some Diseases of Ear in Children. (To be Continued). George C. Stout.
98.—Prognosis and Treatment of Gastric Ulcer. Boardman Reed.
99.—Chemical Examination of Urinary Sediments and Albuminous Urine. A. Robin.

Medical Mirror (St. Louis, Mo.), May.

100.—What the World Owes to Vaccination. J. F. Marchand.
101.—*Intestinal Antisepsis by Means of Chlorin Water in Typhoid Fever. O. D. Fitz-Gerald.
102.—Fernand Henrotin, M.D. I. N. Love.

Medical and Surgical Bulletin (Nashville, Tenn.), May.

103.—Two Weeks' Experience with Cancer. M. C. McGannon.
104.—Amputation of Breast After Method of E. J. Senn. T. J. Happel.
105.—Report of Case and Operation Under Difficulties. J. B. Jackson.

Denver Medical Times, May.

106.—*Transscapular Amputation. N. Senn.
107.—*Practice of Medicine and Surgery in the Higher Altitudes. R. Harvey Reed.
108.—Presentation of Code of Ethics. W. P. Munn.
109.—*Patient in Colorado. E. P. Hershey.

Richmond Journal of Practice, April,

110.—How Can the Physician Best Collect His Fees? R. L. Payne and S. W. Dickinson.
111.—Clinical Microscopy in Diseases of Respiratory Organs. H. Stuart MacLean.
112.—Difference in Cause, Symptoms, Results and Treatment of Grip and Colds. Wm. S. Gordon.

Columbus Medical Journal, May.

113.—*Treatment of Pulmonary Tuberculosis by Collapsing the Lung. Sherman Leach.
114.—Pneumonia and Its Treatment. S. C. Dunn.
115.—What We Want from Doctors. W. F. Oldham.
116.—Address on Behalf of the Faculties at Eighth Annual Commencement Ohio Medical University. Otto Arnold.

Peoria Medical Journal, May.

117.—Eye-Strain as Cause of Simpler Eye Disease. Charles D. Thomas.
118.—Study of the Hand for Indication of Disease. Charles H. Brobst.
119.—Pulmonary Tuberculosis. B. T. H. Stetler.

The Stylus (St. Louis, Mo.), May.

120.—*Limitations of Tuberculosis. (Concluded). William Porter.
121.—*The Therapy of Miscarriage. R. B. Turner.
122.—Valedictory to Graduating Class of Beaumont Hospital Medical College. Walter B. Dorsett.
123.—Cyanosis Neonatorum. John A. Hale.
124.—Use of Creosote in Treatment of Malarial Conditions in Children. L. P. Walbridge.
125.—Recent Improved Methods in Stomach Diagnosis. (To be continued). M. D. Schmalhorst.

Obstetrics (N.Y.), May 1.

126.—Bacteriologic and Clinical Researches with Reference to Slight Elevations of Temperature During Puerperium. K. Franz.
127.—On Treatment of Abortions. J. S. Baer.

International Journal of Surgery (N.Y.), May.

128.—Rupture of Liver and Gall-Bladder. Carl V. Vischer.
129.—Up-To-Date Treatment of Fractures. H. L. Stickney.
130.—Technique of Surgical Gynecology. (Continued). Augustin H. Goelet.
131.—Regional Minor Surgery. (Continued). George G. Van Schaick.
132.—Treatment of Fractures. (Continued). W. L. Estes.
133.—Treatment of Large Caliber Urethral Impediments. Ferd. C. Valentine.
134.—Enchondrosis; Compound Comminuted Fracture of Skull; Acute Appendicitis; Appendicitis with Perforation of Appendix, and General Septic Peritonitis; Hysterectomy; Ovariotomy; Tubo-Oöphorectomy; Exploratory Laparotomy. George P. Morgan.
135.—Heroin in Surgical Practice. J. Wiesner.
136.—New and Simple Method for Surgical Treatment of Hemorrhoids. C. S. Parkhill.
137.—Attitude of Accident Insurance Companies Toward Railway Surgeons. M. C. Day.
138.—Railway Surgeon and Lawyer. (Continued). W. K. Vance.
139.—Medicolegal Suggestions. (Continued). Thos. H. Hancock.
140.—Importance of Railroad Hospitals. J. M. Thomas.

Carolina Medical Journal (Charlotte), May.

141.—Report on Progress of Rhinology and Laryngology. Edward F. Parker.
142.—*Surgical Treatment of High Myopia, with Report of Case. Charles W. Kollock.
143.—Abscess of Liver, Operation, Recovery. Wm. M. Love.
144.—Epidemic of Poliomyelitis. W. P. Ivey.

Georgia Journal of Medicine and Surgery (Savannah), May.

145.—Amputations from Standpoint of Railway Surgeon. W. H. Elliott.
146.—Abdominal Versus Vaginal Section. J. G. Carpenter.
147.—Hydrophobia and Necessity for Pasteur Institute in Georgia. Henry R. Slack.
148.—Ovarian and Tubal Disease as Factor in Excessive and Prolonged Menstruation. Edward N. Liell.
149.—*Pseudoleukemia—Report of Two Cases. A. H. Ohmann-Dumesnil.

Canadian Practitioner and Review (Toronto), May.

150.—Some Cases of Intestinal Obstruction and Strangulated Hernia and Their Treatment. A. T. Hobbs.

AMERICAN.

1. **Microbes—What Are They?**—Graham holds that the bacteria are low forms of life, derived from the protozoans, and that they are practically identical with these simple forms of animal life.

2. **Estivo-Autumnal Fever.**—Veazie discusses the treatment, the main stay of which is quinin, that must be taken in forms easily absorbed. Aside from quinin, the treatment should be expectant, and the patient should be closely watched. During an epidemic or where the disease is prevalent, small doses of quinin aid the prophylactic effect. Those subject to malaria should avoid night air, keep their systems in order, drink wholesome water, and secure a proper amount of sleep under a mosquito-netting. He gives also his reasons for considering the disease entirely malarial. See also abstract in THE JOURNAL of June 2, ¶ 11, p. 1436.

3. **Furunculosis.**—Langemann holds that in addition to the ordinary cause by the invasion of staphylococcus aureus into the skin, there is a nervous element in the production of furunculosis, and thinks that it is possible that this is present in all cases. The method of treatment described is the galvanic current. The cathode is placed on the furuncle, the anode somewhere in the neighborhood, and a current of 2 to 5 milliampères is applied for from five to ten minutes. As a rule, one sitting daily is sufficient. Lacking the galvanometer, the sensation of the patient may be taken as a guide; the feeling of a lively sting at the center of the boil, just as much as can be tolerated, indicates about the proper strength of the current. Almost all furuncles, when thus treated in their incipiency, abort. When a little pustule has been formed, this mass of pus is extruded, but no suppuration follows, and even in more advanced cases it is diminished. Where there is extensive suppuration, he uses a flat pledget of cotton, soaked in 1 to 1000 sublimate solution between the sponge and the skin. Under this treatment, some boils disappear after one or two applications, others require as many as eight. On the average,

four or five are sufficient. He notices the literature in regard to the use of electricity for boils or similar conditions, and only one author, Bigelow, speaks expressly of the use of galvanism for this purpose.

4. **Blood Diseases and Surgery.**—The various blood conditions are discussed in their relation to surgery. Simple anemia frequently complicates surgical disease, and when it exists to any marked extent, should contraindicate extensive operation. Mikulicz insists that operation should not be performed when the percentage of hemoglobin has fallen below 30. Symptomatic anemia is a condition complicating various disorders, especially of the gastro-intestinal tract, and, while it is of less importance from a surgical point of view, the preliminary disease must be looked after. Chlorosis is another condition which, when serious, is a contraindication to surgical operation. In malignant anemias, no surgeon would operate, though in Hodgkin's disease there may be a possibility of benefit from operative treatment, and he reports a case. The importance of leucocytosis as a symptom of pus formation is noticed and the conditions in which it occurs. The treatment of anemias depends largely on the use of iron, and Van Schaick gives the report of cases so treated.

5. **Diphtheria.**—The points made on diphtheria, by Jervey, are the occasional atypical course of the disease, the existence of what is called latent diphtheria, and the occurrence of a mild chronic type, with or without membrane, though when this occurs it is usually limited to the nose and nasopharynx. He reports a case and refers to a similar one reported by Baber, of London, as supporting the existence of this type, which is not conceded by writers of all modern text-books. In some forms of this disorder, it is not possible to positively diagnose the disease, and he mentions the complications with other conditions and the possible relationship between rheumatism and diphtheria, believing that the diphtheria bacteria may sometimes be responsible for rheumatism. He points out what should be regarded as suspicious in any case, difficulty of swallowing, fever, enlarged glands, and albumin in the urine. For treatment, he speaks of the method of preventing infection and the use of antitoxin for prophylactic and therapeutic purposes.

7. **Insane Hospitals in Mental Diseases.**—Paton points out the value of pathologic studies in insane hospitals and the necessity of giving personal daily attention to the condition of each patient, also the need of keeping in touch with the scientific work throughout the world. The method of employing internes, as at the Worcester Hospital, is commended as a course that should be followed. He thinks that the future study of mental diseases in America will be governed by the answer to two questions in regard to hospitals: 1. Will these institutions demand and employ only the best and most skilled workers who can be found? 2. Having obtained their services, will these institutions give any return in the way of time, opportunity and facilities for working out these problems on which will depend so largely the welfare and happiness of the whole human race?

8. **Genito-Urinary Diseases.**—Guitéras describes his method of examining and recording cases of diseases of the genito-urinary tract and publishes his case-blank and schematic plans.

9. **Registration of Tuberculosis.**—Flick considers that the first step in the prevention of tuberculosis is registration. The disease is contagious, that is, its germ goes from one host to another without passing through any intermediary host or culture-medium, and this point must be considered. The intensity of the contagion is in proportion to the intimacy of contact. In every sense it is contagious, and in none infectious. The individual liability is to be considered and the intensity of contagion is not as great as that of exanthemata, but it more than makes up for this by its duration. If tuberculosis lasted no longer than smallpox or scarlet fever it would probably die out, but its contagion is a lasting, not a temporary, one. He maintains, therefore, that it should be as much subject to registration as are other diseases which have long been thus treated. If tuberculous patients decline to enter sanitariums and hospitals, the contact can be sufficiently controlled for preventive purposes by the enforcement of specific rules, and maintenance of personal cleanliness. Lack of attention to this should subject the individual to commitment to a hospital or sanitarium. He claims that fomites are a frequent means of spreading the disease, and that the efforts that are made at present in the way of prohibition of spitting, etc., are misdirected. Spitting is a necessity for the consumptive, so he demands that it should be prohibited only in public places, street-cars, sidewalks, etc. In conclusion he says that without registration the prevention of tuberculosis can not be placed on a scientific basis because the requisite data can not be obtained, and that registration is necessary in order that: 1, contact may be controlled; 2, the creation of fomites may be prevented; 3, fomites may be sterilized and 4, innocent parties may be given an opportunity to protect themselves against contamination in dwelling places. Many cases of tuberculosis are undoubtedly contracted in contaminated houses, and this mode of distributing the disease can not be stopped in any other way than by registration.

10. **Asthma.**—By asthma, Faulkner means a spasm of the bronchial tubes, and peribronchial hyperemia, approaching or amounting to inflammation, accompanied by râles on both inspiration and expiration and great difficulty of breathing. The term is applied to the paroxysm alone. Different forms of it are discussed, and, in the treatment, he suggests the local use of strychnia by intralaryngotracheobronchial injection, of from .02 to .25 gr., *pro re nata*, not oftener than twice in twenty-four hours. To prevent the return of paroxysms, he advises exercise of the respiratory muscles; removal of all exciting causes and toxic influences, such as dust, irritating plants, odors, etc.; the restoration of general good physiologic conditions of digestion, respiration, circulation, nervous system, etc.; removal of reflex irritation, nasal, rectal, and uterine; relief of bronchial hyperemia and bronchitis; repair of emphysema, and climatic suggestions. Asthmatics should wear woolen undergarments throughout the year, and their skin should be stimulated by salt baths and friction. Climate is largely a matter of individual peculiarity.

11.—See abstract in THE JOURNAL of March 31, p. 815.

12. **Prognosis in Fractures.**—The general assumption that simple fractures do well is questioned by Herrick, and he points out the need of acquainting the patient in regard to the state of affairs, so that a perfect understanding may exist, and that that which is broken can never be restored without leaving some blemish. No man should ever say to his patient that his leg will be as good as ever, for it will not be, and he should be made to anticipate the surety of a permanent defect as a natural consequence of a broken limb.

13. **Arsenic in Cancer.**—The method recommended and described by Trunecek consists in the use of an alcoholic solution—50 per cent. alcohol, 50 per cent. distilled water—of arsenious acid the strength of 1 to 150, which is painted over the surface of the cancer with a brush. The eschar gradually becomes black and finally detaches itself and is thrown off after repeated applications of the solution, the strength of which is gradually increased up to 1 to 80. After it has fallen off, another application is made and if a yellow crust is produced which is readily detached without hemorrhage, nothing further need be done; but if a dark, undetached eschar appears, the treatment should be continued until the last cancerous cell has disappeared. Trunecek describes two cases that were cures, and sums up the mechanism of the treatment as follows: 1. The cancer cells are first of all dehydrated by the alcohol, and then their protoplasm coagulates in the presence of arsenic. 2. The cells of cancerous connective tissue—cancerous stroma—degenerate and provoke a serous exudation, which in its turn determines alteration in the cells mummified by the arsenic. 3. In the surrounding healthy tissues a circumscribed inflammation is set up by the remedy, which always goes on to suppuration, and by means of which the neoplasm is first cut off from the circulation, and is finally eliminated from the organism as a foreign body.

14. **Cystic Tumors of Testis and Epididymis.**—Bullitt describes the types and variations of hydrocele and epididymal cysts and illustrates by schematic drawings. He thinks that

the epididymal cysts may originate as retention cysts due to dilatation of seminal tubules, as new formations in the connective tissue from rupture of one of the tubules, and from certain fetal relics such as the parepididymis, vestiges of the duct of Mueller and the vas aberrans. These cysts are slow in development and may cause such slight discomfort as to scarcely demand relief. Simple evacuation may produce a cure, or the injection of iodin or carbolic acid may be practiced, but the best method is to dissect them out.

15. **Health Conditions in Hawaiian Islands.**—Davis describes the general topography and climatic conditions of the Hawaiian Islands, and the peculiarities of the population, and points out that in the city of Honolulu, owing to the mixed character of the population, some very unsanitary conditions have prevailed. While the island government is doing all it can to improve matters, there is much prejudice among the natives and Chinese residents that hinders their progress. When the sewerage system of Honolulu is complete, the marshes and stagnant waters filled up and the breeding of animals stopped in its limits, it will be the garden city of the world.

16, 17, 18, 19. **Medical Education.**—Eliot discusses the methods of medical education and points out the advantages of newer methods, or rather of the inductive method. He believes that a four-year course will not suffice unless methods can be improved and instruction condensed, but hopes that they may succeed in so doing. Councilman describes the methods of pathologic instruction of the Harvard Medical College in detail, showing its advantages and difficulties. The things that are prominently brought out, according to him, are: 1. That the mind of the student must be active and not passive. That he can only acquire knowledge by his own powers of observation and deduction; he can not acquire it by being told things. 2. That teaching should be individual as far as possible. That the central idea should be to give opportunities to the student, and to assist him in the effort which he himself makes. 3. That medical education should not be directed solely to teaching the medical art, but education in its true sense, the development of the individual, must not be lost sight of. Cannon speaks of the case method of medical teaching as viewed by the student. Burrell insists on the importance of the student acquiring as well as simply receiving knowledge, and thinks that the most marked advance is the use of the case method of teaching surgery. It will counteract the danger of making surgery too mechanical, as is the tendency of the present day.

20. **Section Teaching.**—According to Wentworth, the disadvantage or objection to section teaching is the large number of instructors required; the suggestion that it should be substituted for clinical lectures is also objectionable. That it may be injurious to patients or that lack of clinical material may interfere with such a course, is not probable, while its advantages are that it requires the students to do most of the work, and they learn systematic methods of examination, to state results, to make provisional diagnoses and defend them, and in this way to express their opinions. He thinks that it would be difficult to overestimate the value of such a course when combined with competent instruction.

21. **Membranous Colitis.**—According to Thomson, membranous colitis is not, as sometimes held, a nervous disorder, as it may be entirely independent of any antecedents of neurotic order. Its pathologic and clinical symptoms, however, do not point directly to the nature of the disease, but rather to what it is not. It is different from ulcerative colitis or catarrhal inflammations of any kind. It may be due to local irritations of various character; pressure of a uterine fibroid or horseback riding has been known to produce it, but the most common cause is prolonged retention of hardened scybala. The first indication in the treatment is to relieve the symptoms, and nothing is so soothing for the tenesmus, the cutting and bearing-down pains, and general abdominal distress as free irrigation of the colon with normal saline solution, to which may be added five drops of oil of peppermint to the pint. Three to five gallons with a temperature of 100 F. may be employed with Kemp's rectal irrigator, once in twenty-four hours; care must be taken, however, that all the fluid is returned. In some cases, he has derived benefit from using, at the end of the irrigation, a gallon of water in which from 60 to 100 gr. of resorcin has been dissolved, being careful that it is all expelled afterward. Once a week a pint of clean water with 30 to 40 gr. of silver nitrate may be used instead of the resorcin. Unfortunately all this is not curative, but it should not be omitted from the treatment. The best medicinal remedy is the small alterative dose of castor-oil. He gives it in emulsion, in which each tablespoonful contains from .5 to 1 dram of the oil, to be taken one-half hour before or one hour after meals. This should be continued for months and only intermitted when it seems to disagree. Nitrate of silver in quarter-grain doses combined with turpentin is sometimes serviceable when given three times a day. General indigestion is met with 5 gr. of resorcin in a solution of tinctura nucis vomica, a half hour after meals, supplemented by 10 gr. each of sodium benzoate and bismuth salicylate, in capsules, one hour after meals as intestinal antiseptics. The dependence of the disease on chronic constipation should be kept in mind and salines used to meet this condition. Daily massage of the bowels and attention to diet are also important. He excludes beans, corn, spinach and woody vegetables, and encourages the patient to eat meat, poultry, eggs, etc., and most cereals. On general principles he advises out-of-door exercise and change of scene to the country if possible.

22. **Tuberculosis.**—Trudeau describes the sanitarium treatment at Saranac Lake and gives a table showing the results, which are certainly remarkable. Of 113 incipient cases, 82 were apparently cured, 25 had the disease arrested, 4 were improved and only 2 did poorly. In 151 advanced cases 27 were apparently cured, 67 had the disease arrested 43 improved, 13 failed, and only 1 died. Of 59 far advanced ones 12 were arrested, 26 improved, 16 remained stationary, and 5 died. These figures include only the patients who remained eight months on an average.

23.—See abstract in THE JOURNAL of May 5, p. 1132.

24. **Pathology of Insanity.**—Wise gives the position of the state commission in lunacy in regard to the questions that have arisen regarding the state pathologic laboratory. He publishes the report of a commission consisting of Drs. Cowles, Blumer and Councilman. Its conclusions are: 1. The Pathologic Institute should be maintained, but reorganized on a basis that shall have systematic teaching as its main function. 2. It should teach the fundamental principles whose study and application must lead to the clinical, anatomic and chemical research necessary for the advancement in the curative and preventive treatment of insanity. 3. It should have as its director a physician who has had a training in clinical psychiatry, besides being a competent pathologist. 4. It should be located on property of the State, in a building of its own, as near to the metropolitan medical schools as is practicable. 5. As an essential of its teaching function its building should adjoin, or be a part of, a small hospital for the insane for the reception of acute cases and other appropriate for investigation. 6. Entrance into the medical service of the state hospitals should be conditioned upon previous training in the Pathologic Institute.

27. **Stricture of the Rectum.**—Krouse believes that nonmalignant rectal strictures are more frequent than has been generally held and reports six cases. He does not find them always situated near the anus, but more often beyond the reach of the finger. In 20 cases, 12 were situated high up near the sigmoid flexure, 6 only near the anus.

29. **Alcohol.**—Trimble rejects the idea of alcohol as a food, and believes that its evil effects should remove it from any such category even when it is advantageous to a slight extent. Its use in medicine is discussed. He concludes by giving the rules of Armstrong, sanctioned by Graves, regarding the use of alcohol in fever, which he says have the general indorsement of the profession. 1. If the tongue becomes more dry and baked, alcoholic stimulants generally do harm; if moist, they do good. 2. If the pulse becomes quicker, they do harm; if slower, they do good. 3. If the skin becomes hot and parched, they do harm; if more comfortably moist, they do good. 4. If the breathing becomes more hurried, they do harm;

if more tranquil, they do good. To these Ringer adds a fifth: Alcohol does good when it produces sleep and quells delirium.

31. **Epithelial Growths.**—Engman speaks of the treatment of warts, condyloma acuminata, verruca senilis, epithelioma and rodent ulcer, and tuberculosis verrucosa cutis by formalin. He first cleans and softens the surface to be treated with hot water, benzin, salicylic acid plaster, etc., sometimes with peroxid of hydrogen, and cocainizes, if necessary, before applying the formalin. He has had success in nearly all these conditions when this method was used.

34. **Vasectomy.**—Harrison states that vasectomy has been shown to be especially effectual in the earlier stages of prostatic enlargement by effecting shrinkage of the glands and the restoration of the natural processes; that in cases where there is evidence to show that the prostate has in its degeneration assumed the form and structure of a fibrous growth, the conditions are such, provided the symptoms of obstruction warrant the adoption of other measures than catheterism, as to render some form of prostatectomy preferable to either vasectomy or castration; that where as a sequence of sudden or protracted prostatic obstruction secondary changes have taken place in the bladder itself, in the form of sacs, pouches, or trabeculation, the possibility of restoring its natural function by any means is extremely unlikely. Under such circumstances, the induction of shrinkage of the enlarged gland will do good in affording a readier access for the catheter and in removing spasms, pain or hemorrhage connected with this or other similar processes.

42. **Life Insurance Examinations.**—Adams calls attention to the importance of more thorough protection of the applicant for life insurance, in order to avoid excluding him when there may be conditions only temporarily suspicious. He suggests that the agent of the company or the family physician of the applicant should call his attention to the fact and that he be allowed a prior examination before going before the company. The various possibilities of mistake or injustice from urinary examination, for example, are discussed. No applicant should be rejected in reality, because he should know his condition in advance, and if there is a risk he should not apply.

44.—See abstract in our Therapeutics Department this week.

46.—Ibid.

51. **Urinary Anomalies.**—The first of the anomalies noted by Brown is the "simulative nephritis" occurring after operation on the kidney, by which he means a condition of the urine accompanied by blood-cells, numerous granular hyaline casts and considerable albuminuria immediately following operations of nephrectomy or nephropexy and clearing up afterward. None of the other symptoms of nephritis are present. The casts appear for only a few days at the most, and in all the cases the urine is perfectly normal before the operation. He discusses the possibility of the ether anesthesia and handling of the kidney as factors, and thinks it likely that of these the stitching and handling are the most important. The second condition noticed is that of post-operative glycosuria, he mentions three cases of this and thinks it probable that many would show this symptom, if properly examined. Lastly, he mentions a case of simulated diabetes in which sugar was found in the urine, but careful examination showed that it was cane-sugar and the case was one of factitious melituria. He mentions this as the first case of which he has heard where diabetes was wilfully simulated.

52. **Acute Leukemia in Childhood.**—The case reported by McCrae was in a male, aged 3 years. He reviews the literature of similar cases and analyzes the symptoms of this rather rare condition. He emphasizes the importance of careful study of the anemias of early life and more careful attention to blood examination in diseases of children.

53. **Stone in the Bladder.**—Cabot remarks on the difference of opinion as regards the future of litholapaxy and discusses the operation, which is the one of choice in all his cases except in a few instances where for some reason it could not be used. He has done litholapaxy 122 times, suprapubic lithotomy 12, and perineal lithotomy once. In his 122 litholapaxies 6 patients died within a comparatively short time after operation. He details the cases to show that no other operation could have afforded a better chance of life. In his whole series he has had but one serious accident and that was rupture of the bladder, and the patient recovered. The fear that many surgeons have of nipping the bladder wall is without basis and can be wholly avoided by having the bladder contain a proper amount of fluid and operating in the center of the base of the organ. The disadvantages of perineal lithotomy are occasional impotence, ocasional stricture, and rarely also fistula. Recurrence of stone after litholapaxy, he thinks, is not a serious danger if care is used in washing out the bladder ten days or a fortnight after the operation. In conclusion, he reproduces the exceptions to this operation, which he published in 1889, and states that he has no reason to change his belief as to the value of litholapaxy in all other cases except where exist coincident bronchitis or other conditions rendering etherization dangerous. His mortality of 4 per cent. in a series of patients averaging 60 years of age is considerably less than can be expected from suprapubic lithotomy in a similar class of patients, and the avoidance of fistula and shortened convalescence are decided advantages.

54. **Recurrent Monstriparity.**—Under the head of "A Problem in Antenatal Pathology," Ballantyne reports the case of a woman, with congenital family tendency to malformation of the thumbs, who bore 7 children: 2 males and 1 female normal, 4 females either still-born, deformed, or congenitally weak and incapable of being raised. The anomalies of the thumbs were present in 3 of the children. The first 2 were boys and healthy, therefore, the tendency to producing defective births appears to have been to some extent acquired.

55. **An Improved Alexander Operation.**—Goldspohn describes a method of shortening the round ligaments. It resembles a modified Bassini hernia operation rather than the original one by Alexander. The celiotomy element is, he claims, necessary at least to the extent of careful digital exploration, in the shortening of every single round ligament in order to be sure no obscure formations or adhesions exist, and that there is no diseased condition overlooked; and that the round ligament proper pulls from the fundus uteri and not from the lateral portion of the broad ligament. The technique is described in detail, with a list of forty-nine cases operated on during 1897 and 1898. The advantages, aside from those already mentioned, are the practically no mortality, absence of hernia in normal conditions, chance of relieving other disordered conditions, the possible saving of the patient from a complete abdominal section and the freedom of any feature that will prevent functional activity of the genitals in after life.

65.—See abstract in THE JOURNAL of March 24, p. 750.

66.—Ibid.

67.—See abstract in THE JOURNAL of March 10, p. 622.

72. **Popular Medicine.**—McGraw's article is a criticism of the teaching of physiology in the schools and the popular education in medicine. He thinks that there is too much of the little knowledge that is a dangerous thing, and that many troubles are largely overworked in the popular information, as even in hygiene there are no universal rules that can be laid down.

74. **Neuroses in Children.**—Holmes calls attention to the defective methods of education as a cause of neurasthenic troubles in children and gives the following factors as of importance: 1. The neurotic condition not properly recognized by teacher or parents. 2. Failure on the part of principals or superintendents of schools to recognize the different abilities, etc., of different pupils. 3. Neglect of parents to study the mental peculiarities of their children to tell when the danger point is at hand. 4. The impossibility, under the present condition of medical practice, of properly instructing parents and teachers in regard to the dangers which beset the neurotic child.

75.—See abstract in THE JOURNAL of February 17, p. 428.

77.—See abstract in THE JOURNAL of March 10, p. 623.

78. **Intestinal Sand.**—Georg remarks on the rarity of reports of this occurrence and notices the leading cases in the literature. He then reports a case of his own observation and finds that the organic material which has been noted in the majority of cases reported as intestinal sand is vegetable

sclerenchyma. The variety depends on the nature of the food. True intestinal, like biliary or renal, sand is formed by a deposit from the secretions of the living body, and consists largely of the salts of lime, magnesium and ammonium, but the greater proportion of the so-called intestinal sand consists largely of the above-described vegetable products and a secondary deposit of a small amount of inorganic salts, including a few silicious particles.

79. **Ethyl Bromid.**—Parker speaks of the value of ethyl bromid as an anesthetic, his own experience having covered about one hundred cases in ophthalmic practice. He has never seen any untoward effects and thinks that we have in it an ideal anesthetic for general obstetric work and short operations, and that it is at least as safe as ether and chloroform and without their disagreeable features.

80. **Electricity in Menstrual Derangements.**—The following are the deductions of Campbell in regard to the use of electricity in menstrual disorders. 1. That electricity properly applied will always relieve pain. 2. That it will lessen excessive discharges. 3. That it will increase the menstrual flux if deficient. 4. That it is sedative, astringent, tonic, alterative, hemostatic or congestive according to the pole in action. 5. That it fills every indication in the treatment of derangement of that important function—menstruation.

81. **Therapeutics of the Nitrites.**—Parker reviews the uses of the nitrites as vasodilators in disorders of the arterial system such as angina pectoris, asthma, arteriosclerosis, Bright's disease, etc. He thinks that the size of the dose is of much importance; and that the usual method of administering 2 or 3 minims of amyl nitrite is in every way satisfactory, but that there is much fault to be found with the ordinary methods of administering nitroglycerin. Nearly every one begins with 1/100 gr. and increases it gradually; he thinks this amount too large, and has seen just as satisfactory results from half that dose, and without the disagreeable after-effects He believes another fault is the common custom of combining nitroglycerin with digitalis, which is wholly unscientific and illogical, since the action of one is immediate and temporary while that of the other is slow and continuing, and so to get benefit from the one, the other is liable to be used too liberally.

85. **Coccygodynia.**—After calling attention to the apparent neglect which this condition has received of late and its lack of mention in some recent text-books, such as those of Fritsch and Veit, Hirst describes the etiology and pathologic anatomy, as he understands it, also the symptoms and diagnosis. The technique of the operation is thus described: The skin over the coccyx is cleansed by the operator after the patient has been anesthetized. A straight incision is made in the raphe from the tip of the coccyx to the end of the sacrum, down to the bone. The tissues are separated by retractors, and, with heavy scissors, sharp-pointed and curved on the flat, all the soft structures are cut loose from the bone. The forefinger of the left hand inserted under the bone acts as a guide and protects the rectum. If there is ankylosis of the sacro-coccygeal joint, it is difficult to tell when the top of the coccyx is reached, and the mistake of leaving the coccyx behind is often made. The alæ of the first coccygeal bones are the best guides. The dissection must extend above these points. Into the cavity beneath the isolated coccyx a sponge is stuffed to catch fragments of bone or bone dust and to control hemorrhage. A chain saw is now slipped under the bone and pushed up so that it takes off the tip of the sacrum. Two or three to-and-fro movements sever the bone. The one vessel as a rule requiring ligation is the median sacral artery, which is tied with catgut. A drain of five strands of silkworm gut is laid in the rather deep wound, which is united with five or six interrupted silkworm gut sutures. The wound is scarcely distinguishable from the raphe after a few weeks.

86.—See abstract in THE JOURNAL of April 7, p. 876.

87. **Perforation in Typhoid.**—The following is the summary of Davis' article: The diagnosis is not always easy. A decided and sudden increase, especially of pain, in the abdominal symptoms associated with an abrupt fall of temperature, is diagnostic of perforation. Leucocytosis is likewise a confirmatory sign. Hemorrhage is accompanied with sudden fall of temperature, but not by a sudden increase of abdominal symptoms. Dulness in the right iliac region is not to be expected in cases of perforation. Localized impairment of resonance may be due to free abdominal fluid; change of position causes it to disappear. Localized pain and dulness may be due to a plastic peritonitis around the site of perforation. This may be observed in one case in ten, possibly one in five. It is impossible to recognize that a perforation is about to occur, and it is not necessary to operate before it does, but it is before collapse is marked. Typhoid fever patients when not in total collapse bear operation much better than was expected. Patients operated on in marked collapse are liable to die on the table. Washing out the abdominal cavity with hot normal salt solution, even if no perforation is present, seems to improve the condition of the patient at the time of operation, and to favorably influence the subsequent course of the disease. We should operate as soon as the diagnosis of perforation is made. It is less danger for the patient to run the risk of having an operation done during the first period of depression than to wait and run the risk of having collapse preclude all operative measures. In operating incise as for appendicitis, and not in the median or semilunar line.

95. **Diabetes.**—Beck thinks it highly probable that many cases of diabetes are due to bacterial influence. He bases this belief on the non-existence of uniform lesions after death, occurrence of disease between certain ages, its repetition in more than one member of the same family at the same time, its occurrence in certain races, the Jews for instance, and its endemic form in certain countries. He thinks that the soil suitable for the growth of diabetes is found in certain neurotics, drunkards, masturbators and drug habitués. The formation of such toxic substances as acetone and diacetic acid may be the direct outcome of bacterial activity. A systemic disturbance allows bacterial invasion and growth, and it in turn produces a poison which gives rise to further metamorphic disturbances. It may be that the production of fermentation in the intestinal tract by the bacteria is an intermediate stage in the formation of the diacetic acid. These toxic substances may originate during this stage, but not before its occurrence. He reports a number of cases treated in accordance with his theory, using liquor auri et arseni bromidi with apparently good results.

101.—See abstract in our Therapeutics Department this week.

106. **Transscapular Amputation.**—Senn reports two cases of malignant disease of the humerus, in which operation was performed by sawing across the neck of the scapula instead of removing the bone as a whole. He thinks that in this surgeons have gone rather too far and that in the future a distinct line must be drawn between cases in which it is absolutely necessary to remove the entire bone and a part of the clavicle and those in which a radical operation can be performed by resorting to transscapular amputation. One of his cases was also of interest as being a recurrence after twelve years, reproducing the same histologic picture as in the first infection.

107. **Medicine and Surgery in High Altitudes.**—After giving a general description of the climate of Wyoming, Reed describes some peculiarities of medical practice in this region. He finds a striking difference between medical and surgical cases in these high altitudes from those of lower level. The extreme bodily temperatures are notable; he has seen them range between afternoon and morning from 107 to 96 without any serious effects. In typhoid, hemorrhages are frequent and sometimes apparently serious and yet a good recovery occurs. In pneumonia, the low atmospheric gravity favors pulmonary congestion, which if not promptly relieved passes to hepatization and death by asphyxia. Frequently capillary pulmonary hemorrhage occurs and is a relief. Capillary bronchitis is a very common and fatal trouble in children, and the extreme dryness of the atmosphere desiccates the pulmonary secretions and makes it often necessary to moisten the atmosphere of the sick-room. Intestinal complications are also frequent. There are no two other diseases probably so fatal in high altitudes as are capillary bronchitis and pneumonia. Pulmonary tuberculosis is almost unknown. Shock is very much less serious and rarer than in lower altitudes, and infection is less to be

dreaded. He reports cases showing the little danger from apparently very serious infection in this region. Dry powder dressings are not advisable, as moist ones are necessary. For anesthesia he discards ether, as it is too irritating at the high altitudes, and uses chloroform instead, excepting when it is necessary to give it as an anesthetic during shock.

109. **The Patient in Colorado.**—Hershey advises the physician who wishes to recommend Colorado to his patient to observe the following rules. If the patient is bed-ridden, keep him at home. If it is a case of phthisis florida, Colorado is no place for him. If the pulse-beat is over 110, or there is a decided daily rise of temperature, guard your advice, and caution the patient only to try the climate. If there are large cavities, try a lower altitude than Colorado. Send the patient with a letter to some reputable physician, with the diagnosis and history of his case. Request a reply, placing the physician there on record. Advise the patient to take no exercise whatever until he has consulted his physician there. If the patient has incipient phthisis, do not wait until the disease becomes well advanced before sending him away. The earlier he reaches Colorado, the more decided are the chances for ultimate recovery.

113. **Tuberculosis.**—Leach calls attention to the value of the Murphy method of collapsing the lung, and reports two cases where it has been used to advantage.

120. **Limitations of Tuberculosis.**—The conclusions of Porter's article are: Tuberculosis is not a self-limiting disease, but belongs to the class of progressive and aggressive diseases, as nothing in it tends to recovery. It is limitable under certain conditions, which may be accomplished by sanitation and sanatoria and special hospitals in a general way, and in the individual by prophylaxis and early diagnosis, repair and restoration to normal function, by antiseptics and germicides and lastly by the production of artificial immunity. He has used the antiphthisic serum T. R., but does not use tuberculin, which he considers dangerous.

121. **The Therapy of Miscarriage.**—Turner does not believe in active interference in cases of abortion, and if the case is progressing favorably he would let it alone. If, after expulsion of the fetus, the afterbirth or membranes are retained by adhesions, and hemorrhage develops, he would introduce a Sims' speculum through which he could tampon the vagina with absorbent cotton, thoroughly pressing it up so as to control the hemorrhage, and allow the patient to rest. After fifteen or twenty-four hours he would cautiously remove the tampon. In a great majority of cases, the retained matter is removed with the fetus, and the case is practically through. In cases where the placenta is still retained, however, and the hemorrhage recurs he would re-tampon and use the faradic current to the fundus of the uterus. When the tampon is now removed, he would expect to find the uterine contents following it, or protruding from the os. By this method the patient is kept quiet and hopeful without nervous irritation or anxiety, and there are no wounds or abrasions to be treated and no open avenues for septic infection. In his experience of over thirty years, he has followed this treatment and has no ill results to record.

140. **High Myopia.**—Kollock concludes that operation is justifiable in most cases of 12 D. and over, in which degenerative changes have not caused floating bodies in the vitreous, retinochoroiditis, hemorrhage and beginning retinal detachment. The existence of these changes in a passive state should not be a contraindication in all cases. The best results will be obtained in children, young adults and in those whose parts are in a healthy condition. In all cases, discission should be performed a number of times in order that the absorption of the lens may be given a fair chance, which abates the dangers of retinal hemorrhage and detachment and does not seriously increase that of infection. Detachment and retinal hemorrhage are less apt to occur if the condition change gradually. The results in the way of increase of visual acuity and field far more than counterbalance the danger of operation when proper precautions are used.

147.—This article has appeared elsewhere: see abstract in THE JOURNAL of April 28, ¶ 150, p. 1055.

FOREIGN.

British Medical Journal, May 26.

Vaginal Hysterectomy for Uterine Prolapse. R. C. CHICKEN.—In this operation, it is aimed to secure a peritoneal adhesion high up so as to supply a new pelvic floor. The plan he recommends is a removal of only a part of the uterus and the unattached portion of the posterior fornix. In complete prolapse, the fundus of the uterus by its descent carries the posterior half of the bladder and ureters with it, so that the posterior wall becomes the anterior, and the anterior walls and sides are covered by the bladder and ureters. To guard against accident in operating, made liable by this condition, a sound is passed backward and downward into the bladder as it lies exposed in front of the uterus. The continual dexterous manipulation of this by an assistant shows the limits of the bladder. By the means of scissors, the bladder is dissected off the sides and cervix, the incision being in the uterine tissue; the points are now turned sharply backward and the uterus cut across at the level of the cervix and Douglas' pouch. Two fingers of the left hand are passed through into the peritoneal cavity, the uterine fundus is seized, retroverted, drawn down and amputated at the point of peritoneal reflection on its anterior surface, the broad ligaments having been previously seized with forceps and ligated. There is now left, attached to the base of the bladder, a solid piece of uterine tissue. On the breadth and firmness of union which this is able to make, enabling it to resist the downward pressure in micturition and defecation, depends partly the success of the operation. At this stage there is left the cervix and os uteri, hanging on to a long flap of mucous membrane and peritoneum, which is the stretched and useless posterior fornix. This is cut off close to the base, and to this raw surface at the base of the pelvis, the stump of the uterine tissue is easily brought in contact after the bleeding has been stopped and a posterior fixed attachment is secured. The parts are retained in position by gauze tampons. With this operation, he claims there is a broad firm union of fixed inelastic tissue to give fixed support to the neck of the urinary bladder. The points of advantage are: 1. A solid piece of uterine tissue remaining. 2. The transverse cut across the uterus, allowing of easy retroversion of fundus and facility of applying ligatures to vessels. 3. The removal of the whole of the floor of the Douglas pouch. 4. The incision in the posterior fornix being made as far back as possible, the resulting scar admits of no "play" between the bony pelvis and the neck of the bladder. The only part where special care is required is the dissection involved in separating the displaced bladder.

Treatment of Puerperal Eclampsia by Diuretic Infusions. ROBERT JARDINE.—This writer reports the results of treatment in 22 cases of puerperal eclampsia by infusion of sodium chlorid and potassium bicarbonate or sodium acetate, to control the first spasms, and chloral and bromid as an immediate drug resource, and magnesium sulphate to clear the bowels. Hot applications were used to keep the skin active; but the most important part of this treatment is the saline infusions under the skin in the region of the breast, a dram of sodium bicarbonate or sodium acetate to the pint of normal saline solution, one to three pints being used at a time. Three of the 22 cases were hopeless from the first. Of the 5 deaths, including the 3 mentioned, 1 occurred from duodenal ulcer on the seventh day after treatment, the other from double pneumonia, gastric ulcer and acute enteritis. Omitting the ulcer case we have only 4 deaths in 22 cases. Of the 23 children, 10 were alive and 13 dead. In 2 cases they were macerated. Craniotomy and perforation were performed on 3, and 3 were too premature to live. Of the 10 full-term children, 2 were lost, as craniotomy had to be performed. No other treatment has given him as good results.

The Lancet, May 26.

The Wounded in the Present War. SIR WILLIAM MACCORMAC.—The writer reviews the surgery of the present war and compares it with the results of the Cuban contest. The Lee-Metford and Mauser bullets are practically the same in their effects, and the number of recoveries in the Transvaal War so far has been exceedingly large. At the beginning of the war, he did not anticipate any successful results from

abdominal surgery, and his experience has confirmed his opinion, though he did not realize the comparative immunity of abdominal wounds from these bullets. He knows of one patient who recovered in spite of operation. He thinks that a number of recoveries from abdominal wounds, when not interfered with, were probably due to the empty state of the intestinal tract at the time of the injury, and that the rule in the future will be to give patients a chance to recover without operation. In the case of chest wounds, the principle of noninterference and antiseptic dressing was still more strongly affirmed, and he illustrates by a number of cases. Uncomplicated gunshot fractures rarely required amputation and very few resections were practiced. He saw only one, and the result did not promise well. He also calls attention to the number of lodged bullets, which also agrees with American experience. He speaks against active interference to remove bullets, which are usually better left alone, and in this he disagrees with Sir William Stokes, whose reasons he considers altogether insufficient. He thinks that the place of the female nurse is at the hospitals, not at the front.

Operative Treatment of Simple Fractures. W. ARBUTHNOT LANE.—The author notices the inaccuracy of statements in surgical works as to the relative frequency of various kinds of fractures, and the incorrect explanation given of their causation, such, for example, as fracture of the acromion, which he believes is much more frequent than is usually recognized. He points out the mechanics of fractures and notices the alteration of the axes of the bones and consequent disturbance of function. He calls attention to a condition which he calls traumatic arthritis, due to displacement thus produced. The supposition that the surgeon is able to "set" fractures satisfactorily and restore the original forms and function of broken bones by simple manipulation and splints is a myth. He insists that in simple fractures it is important to the individual that the original form of the skeleton should be retained, without any alteration in its mechanism. The surgeon should, failing to secure accurate apposition as determined by radiographs, cut down on the site of the fracture and restore the bones to their original condition and hold them there by wiring or with nails.

Summer Diarrhea. F. J. WALDO.—Waldo points out that the most satisfactory hypothesis of the cause of summer diarrhea is in the dust from the streets, and that the most important element in this is the excretions from horses. Narrow streets, permeable pavements and dry hot weather are specially favorable to the condition. Heavy rains and clean streets are advantages, and, in the systematic street cleaning, we may look for the most potent remedies or means of prevention. Another way will be the increase of horseless carriages. Other unwholesome sanitary conditions must have attention. He speaks of the part that milk plays in the causation of this disorder and to the defective conditions existing in regard to its sale.

Congenital Word-Blindness. JAMES HINSHELWOOD.—Remarking first that he has already published four different papers dealing with distinct varieties of letter- and word-blindness, Hinshelwood describes another variety, showing that the subject is not yet exhausted. He reports four cases of what he calls congenital word-blindness, a defect of the brain which renders it almost impossible for the individual to form visual memories of words and letters. The first and second cases of this condition were rather marked, but the recognition of figures was in both, especially the second, much better than for words. In the last two cases there was no difficulty in figures, which he thinks indicates that these memories are registered in different portions of the cerebral cortex. He believes that these cases are by no means as rare as the absence of recorded ones would lead us to believe. The fact is they are not recognized and the children are whipped for stupidity, when the trouble is a congenital and only partially remediable defect.

Incubation Period of Plague. FRANK G. CLEMOW.—The incubation period of plague is discussed by Clemow, who notices a number of cases bearing on this point. He concludes that the maximum period may be considered eleven or twelve days; where it is received by direct inoculation the period is not more than two or three days as a rule, and it may be as short as twenty-four hours. He appears to favor the opinion that in cases where the interval between exposure and the onset of the symptoms has been several weeks, the virus has been preserved in fomites outside the body.

Inefficiency of Board of Trade Tests for Detection of Color-Blindness. F. W. EDRIDGE-GREEN.—Holmgren's method of testing for color-blindness is again considered by Edridge-Green, who says that persons with normal sight may be rejected by it, and he criticizes especially the directions by Holmgren that we should ignore color names. A color-blind person names colors in accordance with his color perception and he emphatically denies that the name is guessed, as is often stated. A person with central scotoma will escape detection by the Holmgren test, and the red end of the spectrum may be considerably shortened without causing a failure by it. He describes his own methods, which he calls the "classification test" and the "lantern test," both of which are described in detail in his work on color-blindness.

Revista Medica de S. Paulo (Brazil), April 15.

First Gastrectomy in Brazil. V. DE CARVALHO.—The success of the complete extirpation of the stomach in the observation reported warrants further intervention of this nature. The malignant tumor of the pyloric region had invaded the ganglia of the greater curvature, which showed in the preparation like a close row of large beads extending almost completely around this portion of the organ. The patient was fed with alimentary enemata and complained of great hunger. She is 46 years old, a mulatto cook, and will be kept under supervision.

Etiology and Prophylaxis of Typhoid Fever. VERGUEIRO.—The theory sustained by this writer, who has made a special study of the etiology of yellow fever in its haunts, is that the germs live in the infected subsoil of closely inhabited, unsewered towns. When they find a particularly favorable condition for growth—association with a fungus or whatever it may be—they become virulent and rise with the emanations from the subsoil and are inhaled or swallowed with the saliva after passing through the nose. He cites arguments to show that the immunity enjoyed by farms, plantations and sewered towns built on a clean foundation can only be explained by this etiology, which also suggests prophylactic measures, avoiding exposure to emanations from the subsoil after sundown, etc., advisable also for the prophylaxis of malarial infection.

Bulletin de la Soc. Med. des Hop. de Paris, May 17 and 24.

Suppurative Cerebrospinal Meningitis. NETTER AND JOSIAS.—Nine recoveries from severe suppurative meningitis are reported. All the patients were treated by hot baths, 38 to 40 C., for twenty-five minutes every three or four hours, night and day. Lumbar puncture disclosed the Weichselbaum diplococcus in pure cultures, also in the majority of thirty nonsuppurative cases. The lumbar puncture was repeated as a therapeutic measure after three or four days. Large numbers of the pathogenic germs were evacuated in the fluid; they had evidently settled to the lowest portion of the cavity.

Treatment of Pneumonia with Beer Yeast. P. MARIE.—The fine results obtained with fresh beer yeast or the extract, levulin, in furunculosis have been mentioned in THE JOURNAL. Marie recently had occasion to treat a patient with pneumonia complicated with severe furunculosis. In order to relieve the latter he administered yeast, and found that the pneumonia was also favorably affected by it. The patient rapidly recovered, though the prognosis had been grave. He has since given it to seven other pneumonia patients with equally favorable results.

Echo Medicale du Nord (Lille), May 13.

Cholera at Antwerp, 1892-4. E. TRETROP.—This issue of the *Echo* is devoted to the study of the epidemic of cholera at Antwerp in the years mentioned. The apartments were disinfected with sulphur fumes after thorough saturation of the air with steam; the combination of steam and sulphur rapidly killed the germs. The proportion of recoveries from the disease varied from 44 to 62.7 per cent. in different years. The benefits of artificial serum were strikingly evident in a number of cases in which it was the only treatment.

Journal de Med. de Paris, May 13.

Simple Methods of Sputa-Investigation. A. GIRARD.—A dissolving fluid for the sputa, with none of the disadvantages of the usual media, will be found in the alkaline hypochlorites of sodium or potassium, especially Javelle water. Treated with this fluid the ordinary histologic elements come out clearly, and concretions of mucus having the shape of pulmonary alveoles are also noted. The technique is extremely simple; no heat is required. The sputum is placed in about ten times its volume of good Javelle water, diluted to a third, and shaken. In fifteen to twenty minutes the nascent chlorin has completely dissolved the sputum and the fluid is then centrifugalized and set aside to settle for twenty-four hours. The sediment contains all the solid matters in 2 or 3 cm. of chlorinated fluid. Five or six drops of normal solution of sodium or potassium transform the chlorin into sodium chlorid. The tube is filled with sterilized water and centrifugalized again, the sediment spread on a slide and the preparation finished as usual by the Ehrlich method.

Presse Medicale (Paris), May 12, and 19.

Pathogenesis of Mitral Nanism. GILBERT AND RATHERY.—The special clinical type designated by these writers as mitral dwarfs was described in THE JOURNAL of June 2, p. 1441. They ascribe the etiology to a pure mitral stenosis, congenital or acquired very early in life. The heart is regulated to accomplish an abnormally small amount of work, and the entire body accommodates itself to this condition, as the function makes the organ. This adaptation is more or less complete, and hence the existence of malformations, anomalies in development. The nanism of the brain is shown in the special psychic conditions described. The chlorosis is due to the hypoplasia of the vascular system. A few similar instances of nanism have been observed with pulmonary stenosis and other heart troubles, showing that there is not only a mitral but a cardiac nanism. An organic lesion of the heart may thus exist and develop with no manifestations except those of a dystrophic nature, which at first sight would seem to have no connection whatever with the valvular affection.

Musset's Sign. A. DELPEUCH.—The biographer of Alfred de Musset mentions that, in 1842, a slight involuntary jerk of the head was noticed, accompanying each pulse-beat, "the first symptom of the affection to which he succumbed fifteen years later, a lesion of the valves of the aorta." Two Italians called attention to this sign of aortic trouble in 1895, and Delpeuch describes two recent observations in which this rhythmic movement of the head was the only symptom to call attention to the aortic lesion, of which it is pathognomonic. The rhythmic jerk is evidently merely the propagation to a distance of the attempt of the aortic arch to straighten out under the influence of the arterial wave, as the loss of elasticity—whether from an aneurysm or endarteritis—opposes an obstacle to the wave.

Progres Medical (Paris), May 5 and 12.

Resection of Superior Maxillary Nerve. R. BELIN.—A severe, rebellious neuralgia of two years' standing was completely cured last November by the simple method of resection of the superior maxillary nerve, described by Poirier in April. The scar is scarcely visible, and mastication has not been interfered with in the slightest. The method is based on the anatomic facts established that the upper edge of the pterygo-maxillary fissure is from 2 to 6 mm. above a horizontal plane grazing the superior border of the zygomato-malar arch, while the external plate of the pterygoid process and the above fissure average about 4 cm. distance from the zygomatic arch. The pterygo-maxillary fissure is always perpendicular to the axis of the zygoma passing through the temporo-maxillary articulation, i. e., 1 cm. behind the angle formed by the axis of the zygoma and the external orbital process of the malar bone. The operation consists first in opening up the infra-orbital branch through a separate incision, taking it up on a thread and tying it. The superior maxillary nerve is then reached through an incision 4 cm. long, perpendicular to the zygomatic arch, at the temporo-malar articulation—avoiding the temporal artery. The temporal aponeurosis is then cut, and lightly loosened to the right and left. A small gouge, held perpendicularly, is then worked through the fibers of the temporal and external pterygoid muscles until it comes in contact with the external plate of the pterygoid process, and emerges in the pterygo-maxillary fossa. A sound substituted for the gouge can not fail to touch the superior maxillary. The nerve is then loosened by pushing it down several times, pulling it up by means of the thread tied to the infraorbital branch. The nerve is then cut in the pterygo-maxillary fossa with the gouge or forceps, and the end is extracted by traction on the infra-orbital thread. As soon as it is divided it follows the thread through the suborbital incision. The operation required forty minutes. The patient spat a little blood and there was slight conjunctivitis in the eye, but these inconveniences had all vanished, with the pain, by the third day.

Morphi-Cocainomania. P. SOLLIER.—The method of curing the morphin habit followed by Sollier is gradually to diminish the dose to complete suppression in four to six days with calomel purges every day and an injection of pilocarpin on the sixth, with exclusive milk diet. This promotes the physiologic mechanism of throwing off the morphin by eliminating the intoxicated elements, favoring in every way the glandular and epithelial desquamation, and proceeding as rapidly as possible, in order to induce a lively and thorough reaction on the part of the organism. Four to six days accomplishes the desired result, and he has never had the slightest menacing accident, never syncope, and he doubts whether any other method can compare with this in its certainty, rapidity, simplicity and the complete restoration of the health. He describes as typical a very severe case of a physician who had acquired both the morphin and cocain habits. The heart was normal but pulse rapid; the oxyhemeglobin was reduced to 4.5; over 50 eg. of albumin were noted in the urine, and there had been a recent uremic attack. The blood coagulated as it emerged, appearing like asphyxiated blood both in its aspect and in the spectrum. There was chronic infiltration of abdomen and thighs, also "prick" abscesses. The entire body was twisted and bent almost double, one knee flexed. During the six days of deprivation there were no ill effects noted, no tendency to syncope nor lipothymia. Appetite and sleep returned the fourth to fifth day. By the end of two months the patient had gained 22 kilos, returning to his normal weight.

Pernicious Dysenteric Fever. KANELLIS AND CARDAMATIS.—The long experience of the writers in Greece has convinced them that so-called pernicious dysenteric fever is not a morbid entity; the malarial infection has nothing to do with the essential dysenteroid catarrh. This process and malarial infection may coincide, but their only reciprocal influence is the debility each occasions. The term "pernicious dysenteric fever" should therefore be discarded, and the condition be known henceforth as the complication of malaria with dysenteric catarrh.

Revue de Chirurgie (Paris), May 10.

Wounds of the Rectum. QUÉNU.—In this comprehensive study of traumatic lesions of the terminal portion of the rectum, Quénu supplements his article on wounds of the peritoneal portion, published January, 1899. The first indication in treatment, he observes, is to prevent infection; the danger of hemorrhage is less important. Recovery is the rule when the peritoneum is not involved. If the wound enters the rectum from without, the rectal wall should be sutured and ample drainage be established through the pararectal opening. In all cases the intestine should be kept in repose. When the wound involves the bladder the permanent sound is necessary. When rectoscopy and catheterization show that the peritoneum is involved, laparotomy and suture of the rectal solution of continuity are indispensable. Of thirty-six wounds of this class 33 per cent. of the patients thus treated died, while the mortality was 82 per cent. in the twenty-nine cases in which laparotomy was not done. In cases of wounds from firearms, the indication is to drain as amply as possible, and the best results were attained in cases in which the anal sphincter was incised to prevent stasis of fecal matter in the rectum. A large intrarectal permanent drain might possibly accomplish the purpose, combined with opium and means to induce constipation.

Median Osteotomy of the Hyoid Bone. M. VALLAS.—This simple, easy and essentially benign operation allows entrance to the pharynx and opens up the lower portion of this organ and the vestibule of the larynx much more extensively than other procedures for the purpose. It is especially serviceable in removing foreign bodies, benign, enucleable tumors, circumscribed cancers of the epiglottis and, chief of all, severe syphilitic constrictions in this region. It facilitates the ablation of intramuscular tumors of the base of the tongue, lipomata and cysts, whose extirpation by the lateral suprahyoid route is often difficult. It also offers the most favorable condition for ablation of the tongue. The transhyoid amputation is total, and is less serious than other methods by artificial routes. There are no remote inconveniences, no deformity nor functional disturbances peculiar to this method. Swallowing is accomplished without difficulty, as the muscles learn to compensate the absent member. There are no vessels of any consequence on the median line. The bone is cut with Liston's forceps; when the halves separate, the opening can be enlarged with retractors to 4 cm. The epiglottis is drawn out and held with a thread. A drain should always be inserted in closing the wound, fastened by a pin or stitch. Cicatrization is always rapid. The soft parts hold the halves of the bone in contact so that direct suture of the bone seems superfluous.

Centralbatt f. Chirurgie (Leipsic), May 26.

New Method of Sterilizing Catgut. C. A. ELSBERG.—The chemical principle on which our New York confrère bases his method is that organic substances are insoluble in the fluids which precipitate them from their solutions. Albumin is precipitated by ammonium sulphate and hence it is insoluble in even concentrated solutions of this salt. Applying this principle to catgut, it is treated as described in Elsberg's preliminary communication summarized in THE JOURNAL of May 5, p. 1133, first with chloroform-ether and then with a hot, saturated solution of ammonium sulphate. It retains all its physical properties and the smaller sizes gain in strength. The sterilization can be repeated three to six times without injury. The sulphate crystallizes as it cools and can be used again and again. A table of tests shows the efficacy of the sterilization. The catgut was soaked for twenty-four hours in bouillon cultures of various bacteria and then boiled in the solution at 108 C. Even anthrax spores were killed in five minutes, and when a 2 per cent. carbolic acid solution was substituted for the plain water, they were killed in two to three minutes.

Dermatologisches Centralblatt (Berlin), May.

Treatment of Acute Gonorrhea. H. LOEB.—The capacity of the anterior urethra varied from 4 to 22 cm. in a hundred men examined. This fact imposes the necessity of individualizing for each patient the quantity of fluid to be injected in treating the anterior portion. Any amount over the capacity of this part will find its way into the posterior portion and set up inflammation there. For this reason Loeb never fills the anterior portion even to its full capacity; one-third to two-thirds is sufficient for the purpose. Another point in the technique is to rest the hand on the thigh while holding the injected fluid in the urethra. If the hand is not suspended it is liable to alter its position unconsciously, and possibly force some of the fluid into the posterior portion.

Deutsche Med. Woch. (Leipsig), May 17 and 24.

Industrial Poisoning and Accident Insurance. L. LEWIN.—The German laws for accident insurance cover "sudden injuries" received in the course of wage-earning work. Lewin asserts that the toxicologist sees in the chronic intoxication of a workman handling substances that may have an insidiously injurious action on his organism an accumulation of repeated "sudden injuries," representing a total entitling the workman to indemnity.

Kraurosis Vulvae. P. JUNG.—In 6 of the 60 cases of this affection collected by von Mars, carcinoma coincided with the kraurosis, and also in 1 of the 4 observations described in this communication. This seems to indicate the influence of preceding chronic inflammation in the genesis of the neoplasms. With the exception of this 1 case, the 4 observations terminated in complete recovery. Two were treated with excision of a narrow strip of the labium majus; the other by excision of the entire affected region, as it was a very severe case, with intense pruritis and chronic leucorrhea.

A Case of Glanders. ZAUDY.—The overseer of an estate entered Ebstein's clinic with glanders in its acute stage and died in fourteen days. None of the animals on the estate were known to be affected, but two horses later showed symptoms of the disease. No portal of entry for the infection could be discovered except inflamed tonsils.

Blood-Pressure in Neuropathic Children. P. HEIM.—Tests on nearly a hundred children, with Goertner's tonometer, showed that neuropathic symptoms and high blood-pressure usually coincided with a neurophatic heredity, while no physical cause could be found for the high pressure. If his results are confirmed by others high blood-pressure will be found an important aid in differentiating doubtful cases of neuropathy. The cause of the higher pressure is probably the facile excitability of the cortex, the constant condition of psychic excitement. The amount of pressure does not seem to be proportional to the intensity of the neuropathic symptoms.

Improved Gastroenterostomy. O. WITZEL AND C. HOFMANN.—The Bonn clinic has not lost a single patient out of the last 120 gastroenterostomies whose death could be imputed to the operation in any way, and this fine result is attributed to the improved technique employed. A rubber tube is introduced into the stomach through a buttonhole in the anterior wall and passed through into the efferent portion of the jejunum after the gastroenterostomy has been completed. The patient is fed at once and abundantly through this tube, which not only assists in restoring his strength, but has a still more important purpose in stimulating peristalsis and starting the natural evacuation of the stomach contents into the intestine, establishing the current in the right direction. The stomach function is usually more or less compromised in patients requiring gastroenterostomy, and a little assistance in this way is of the utmost importance and benefit. It avoids the danger of the collapse of the efferent intestine and the dilatation of the afferent portion with stasis of the stomach contents. The writers lay equal stress on another point in their technique: the patients are required to sit up the same day or the day after operation, or at least sit up in bed, and are warned that if they do not cough freely, no matter if it does hurt the operated region, they are liable to have post-operative pneumonia. They are ordered to take twenty-five deep breaths every hour, and if necessary an injection of morphin is made to enable them to breathe full and deep and cough up accumulated mucus. By this means post-operative pneumonia can generally be avoided. In Czerny's latest reports death was due to this cause in fifteen out of the twenty fatal cases. The patient is fed through the tube for eight to ten days and then feeding by the mouth is gradually resumed. The tube is usually left three weeks; it serves to keep the lumen expanded and promotes favorable adhesions even when no longer used for feeding the patient.

Muenchener Medicinische Wochenschrift, May 22.

Recurrences After Operations for Gall-Stones. H. KEHR. Reviewing an experience of 500 operations Kehr reports the remote results of 302 carefully followed to date. There has not been a true recurrence among them, i. e., a new formation of stones after all had been removed, but stones were overlooked during the operation in 19 cases: 11 times in 202 cholecystostomies; once in 104 cholecystectomies and 7 times in 82 choledochotomies. In one case two years after removal of the gall-bladder violent colic and jaundice terminated in the expulsion of two stones, each with a silk thread in the center. Twelve patients complained of oppression in the stomach region and colic after choleystostomy, and puncture disclosed a turbid gall containing the bacterium coli, two requiring the opening of the old cicatrix and evacuation of mucopurulent matters, cured by three weeks' drainage. These inflammation colics should not be ascribed to stones but to the progress of the cystitis favored by the interference with normal contractility of the organ after this operation. Kehr recommends draining for four to six weeks in all suppurative processes in the gall-bladder. He personally examined 248 patients for traces of hernia after

making a fistula, and found it in only 12, or 21 in his total of 302 followed to date. He considers this a very favorable showing. Only one of his 500 patients has a persisting biliary fistula, and this is due to complicating chronic pancreatitis. Adhesions caused trouble in 33 cases, 4 after cholesystectomy and incision of the duct, and 29 after cholesystostomy, but the disturbances were comparatively slight. He received from 85 per cent. of his patients enthusiastic assurances that the operation had been a perfect success, and in nearly all the rest the complaints were transient. Cholecystectomy with drainage of the hepatic is his preferred method, supplemented by dietetic and water cures.

Wiener Klinische Rundschau, April 29 to May 20.

Perforation of the Uterus. BRAUN-FERNWALD.—An imposing array of instances of perforation or rupture of the uterus during gynecologic interventions has been collected by Fernwald. They demonstrate the necessity of extreme caution in even the most insignificant gynecologic operations. The consistency of the uterine wall often proves a disagreeable surprise. Instances are cited in which the weight of the sound alone, without pressure, was sufficient to penetrate the wall.

Arthrodesis of Both Knees. H. PROPPER.—The loose joints in both knees consecutive to paralysis, in a boy of 7, prevented his standing upright, and he could only drag himself along on all fours. The joints were operated on separately. The lad is now moving about on crutches, the knees in splints, a great improvement over his previous condition.

Grece Medicale (Syra), April.

Is Hemoglobinuric Fever Malarial? J. FOUSTANOS.—The physicians of Greece have made a special study of hemoglobinuric fever, and the consensus of opinion seems to be that the disease is not caused by malarial infection, nor exclusively by quinin. Cases have been known in which it occurred without the ingestion of quinin, and it is extremely seldom that the malarial parasites are found in the blood of persons affected. Quinin sometimes aggravates the hemoglobinuria; sometimes cures it. Usually, patients recover more rapidly without it. These contradictions are explained by the generally accepted assumption that in most cases of hemoglobinuric fever malarial infection is the predisposing, and the abuse of quinin the determining, cause, but exposure or physical overtaxation may induce it even without quinin.

Hemoglobinuric Fever. J. CARDAMATIS.—This important work is based on observation of 4022 cases of bilious hemoglobinuric fever. It states that the disease may occur without any manifestations of malarial infection at the time or previously, and without exposure of more than a few days to malarial influences. Some exceptionally malarial regions are entirely free from it. Children between 2 and 4, and aged persons, seem to be comparatively exempt, and no case has ever been known in a nursling. Pregnancy and confinement also seem to confer immunity. Becoming chilled is an evident cause in the production of the disease, and it is probable that the suppression of the functions of the liver from the chill is one important factor in the pathogenesis of the disease. Possibly the destruction of the corpuscles occurs in the liver instead of in the circulation. Nutritional disturbances, as from arthritism, arsenic, phosphorus, alcohol, quinin, syphilis, may produce a predisposition. The fever is not proportional to the importance of the other symptoms. No alterations characteristic of malaria could be discovered at the autopsy of persons succumbing to hemoglobinuric fever in many cases. He asserts, therefore, that it is a disease due to a special cause, but that it may develop conjointly with malarial infection, which, like arthritism, affords a favorable soil. He disapproves absolutely of quinin in the treatment, stating that the mortality of quinin-treated cases was 26.1 per cent. in the 3008 cases on record, while it was only 7.5 per cent. in those not treated with it. Quinin should never be administered unless the malarial plasmodium is found in the blood, and even then methylene blue is much better, as it not only destroys the parasite but favors the excretion of urea and uric acid and diminishes the amount of albumin. Europeans in the colonies, who use quinin freely in the prophylaxis of malarial fevers, suffer frequently and severely from hemoglobinuric fever, while the natives, who do not use this drug—"from fear of the hemoglobinuria"—are rarely affected.

Physiologic Explanation of Menstruation. N. G. SACHINIS.—According to the theory proposed, the female organism—in complete harmony of energy and matter, like all living organic beings—is trained to lose a certain amount of substance in plethoric periods, in order that it may not become debilitated when pregnancy arrives and a portion of the substance is diverted to develop the fetus. The same quantity of blood that would be required for the nourishment of a fetus during pregnancy is eliminated in the menstrual flux. The female organism thus becomes habituated to the loss, which, without this preliminary preparation, would result in the debility of the mother, and consequent defective development of the fetus.

Gazzetta degli Ospedale (Milan), May 13.

Automatic Paquelin Thermocautery. G. OVIO.—Paquelin's thermocautery is rendered automatic by the pneumatic attachment described in this communication. A two-quart cylinder with a bicycle pump arrangement to compress the air is connected by a small tube with a receptacle for benzin. Less than a minute's work with the pump will compress the air sufficiently for the cautery to work a couple of minutes. The benzin lamp is lighted and the valve turned to admit the compressed air. When the cautery becomes incandescent, the cover of the lamp is turned to a certain point and the apparatus continues to work automatically, without further attention.

Improved Process for Preserving White Corpuscles. S. DRAGO.—The disadvantages of the various processes of making preparations of the corpuscles stimulated Petrone and his assistants to seek some other fluid than those usually employed for the purpose. They finally succeeded in finding one that acts rapidly and preserves the constituents of the blood for prolonged observation, showing all the details of the structure of the white corpuscles with remarkably delicacy and certainty. This fluid is the ordinary Lugol's solution.

Pathogenesis of Gastric Ulcer. S. SAITTA.—Two cases of gastric ulcer occurring after long gastrosuccorrhea in one and digestive disturbances in the other, both concomitant with a serious general disease of the nervous system, progressive paralysis or chloro-anemia and neuralgia, suggested to Saitta vagus of a predisposed soil. To test this theory he severed the that the gastric ulcer was due to abnormal innervation by the pneumogastric on each side in sixteen rabbits, and fed them with a weak solution of hydrochloric acid, which induced multiple ulceration in the stomach with general gastritis, while it had no effect on control animals with the pneumogastrics intact.

Lymphosarcomatosis of Mother and Metastases in Fetus. G. BERGHINZ.—Miliary metastases were found in the liver of a child delivered during the mother's death agony, as she succumbed to acute lymphosarcomatosis. Berghinz cites, in opposition to this, the case described by Pennati in which the blood and organs of a 6 months' fetus showed no trace of malarial infection, although the mother had died of malarial cachexia.

St. Petersburger Medicinische Wochenschrift, May 12.

Report of the Finland Sanitarium. A. FELDT.—Sixty pulmonary invalids were treated at the Pitkaejaervi tuberculosis sanitarium in 1898-99, with 21 very much improved and 23 negative results, due in many cases to insufficient stay or intercurrent affections. The average stay was 66.7 days and the average gain in weight 10.02 Russian pounds. As most of the patients had passed the incipient stages of the disease, the results are considered very encouraging for this northern sanitarium.

Gaceta Medica (Mexico), May 15.

Pulverization of Mercury with Turpentin. M. R. LOZA.—If turpentin is put into a bottle with mercury and shaken, the metal will separate into the finest particles, which facilitates the preparation of salves, etc. The essence of turpentin used can be the cheapest variety, but the mercury will not become pulverized unless it is chemically pure. Turpentin can thus be used as a test of its purity.